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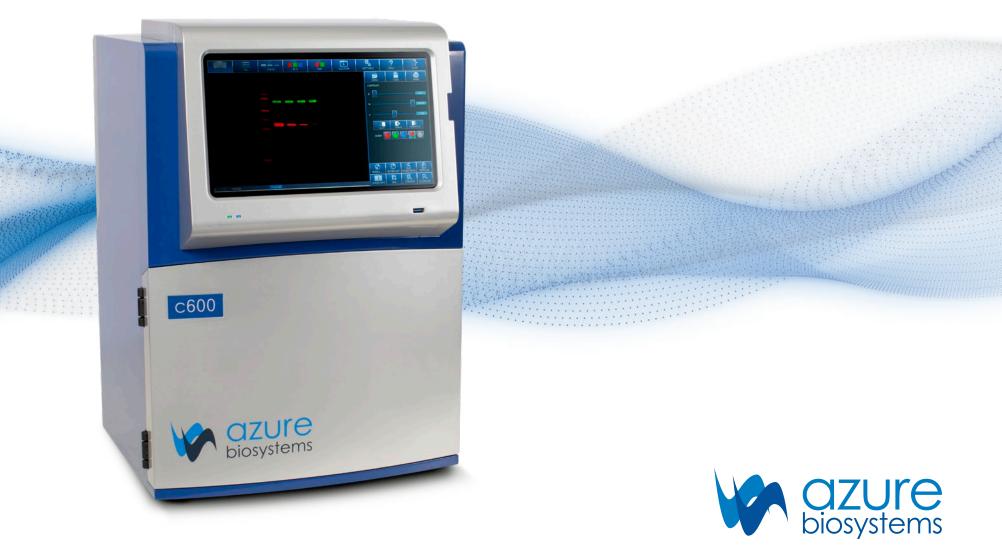
Advisains will become the most reputable science innovation group, accelerating Indonesia scientific and technology industry growth end-to-end, from manufacturing, processing, analytical, diagnostic, and therapeutic.

ADVISAINS.ID | info@advisains.id | 9 +62 817-9154-607



cSeries Imaging Systems

SUPERIOR PERFORMANCE THROUGH INNOVATIVE DESIGN c600 | c500 | c400 | c300



Big performance, small footprint, incomparable value

Great science starts with high-quality data, and when it comes to imaging gels, blots, plates, and even intact tissues and small animal models, high-quality data starts with the cSeries.



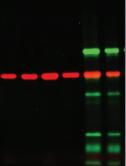
Leveraging Azure Biosystems's deep expertise in imaging system engineering, the cSeries delivers best-in-class sensitivity, dynamic range, and signal-to-noise ratio in an easy-to-use, compact instrument.

- Get high-quality data from an expertly-engineered system
- Perform a wide range of imaging applications with a single, versatile instrument
- Choose a system for today's needs and upgrade as your detection methodologies change
- Seamlessly integrate the cSeries into your studies with easy-to-use image acquisition and analysis workflows
- Save space with our compact design
- Rest easy with a dedicated team ready to answer questions, troubleshoot, and provide on-site support

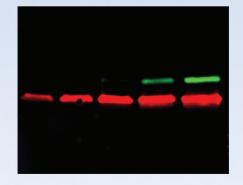


IR FLUORESCENCE | VISIBLE FLUORESCENCE | UV FLUORESCENCE | CHEMILUMINESCENCE VISIBLE IMAGING | BLUE LIGHT EXCITATION

Gels | Blots | Plates | Tissues | Small Animal Models | Plants



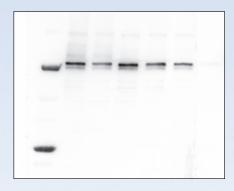
In-gel Fluorescence with GFP and TAMRA



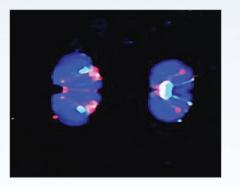
Western Blot with Cy3 and Cy5 Dyes



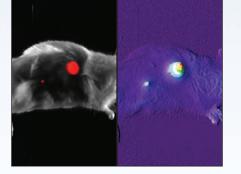
Escherichia coli



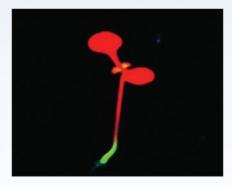
Chemiluminescent Western blot



Mouse brain sections



Mouse with RFP-labeled subcutaneous tumor



Arabidopsis thaliana

Choose Your System

biosystems c600 c500 c400 c300 The All-ground The Ultimate IR The Visible The Darkroom Eliminator **Application Ace** Fluorescence Virtuoso Imaging System RGB NIR RGB NIR CHEMI CHEMI CHEMI CHEMI WHITE BLUE LIGHT WHITE LIGHT BLUE BLUE LIGHT WHITE LIGHT WHITE LIGHT BLUE UV UV UV UV Upgradable to c400, Upgradable to c600 Upgradable to c600 c500. and c600 302 365 460 470 785

cSeries Excitation Wavelengths

RGB LEDs

Colored LEDs provide robust excitation for quantitative visible fluorescence imaging, with excitation at 460, 526, and 628 nm for Cy2/Cy3/Cy5 or similar dyes.

With a narrower excitation band than LEDs or white light sources, you get NIR imaging with better sensitivity and lower background.

EPI BLUE LED AT 470 NM

EPI WHITE LIGHTS -

Uniform overhead illumination for white light imaging.

TRANS WHITE IMAGING

Image visible/white light dyes, such as Coomassie Blue, in gels or other translucent samples.

DUAL-WAVELENGTH UV AT 302 NM AND 365 NM

Image DNA gels and more with a UV light source compatible with a wide range of dyes, including ethidium bromide, SYBR[®] green, SYBR gold, SYPRO[®] orange, fluorescein, RadiantRed®, TexasRed[®], and SYPRO Red.

See How We Deliver High-Quality, Multimodal Imaging

LASERS AT 660 NM AND 785 NM

Image blue-excited DNA dyes like SYBR® Safe, a feature available on all cSeries models.

TOUCH-SCREEN CONTROLS

Easily manage data acquisition and analysis with the touch of a finger, driven by Windows OS.

14

HIGH RESOLUTION CAMERA

Capture fine details of your sample.

DEEP PELTIER COOLING

Experience excellent image quality and reduced noise with low temperature camera cooling (-50°C).

DUAL-FOCUS TECHNOLOGY

Get perfectly-focused images and optimal lane settings without having to touch the camera.

7-POSITION FILTER WHEEL

Perform a wide range of applications with a motorized, multi-position filter wheel.

CHEMI BLOT SHELF

Get better sensitivity by placing chemiluminescent blots closer to the detector. The adjustable shelf can be stored in the door when not in use.

3 USB PORTS

Connect to a drive, a network, or attach a thermal printer.

SAFETY INTERLOCK

The system includes a safety interlock to prevent accidental UV exposure.

LARGE FOV

Image large gels or blots, multiple gels or blots, or even tissues, plates, and small animal models.

c600 | c500 | c400 Dig Deeper: Visible Fluorescence Imaging

With high resolution, high sensitivity, and low background fluorescence imaging, the cSeries enables quantitative Western blotting and a whole lot more. Choose the c400 for visible fluorescence, the c500 for NIR fluorescence, or the c600 for both visible and NIR fluorescence.

MULTIPLEX DETECTION

No need to strip and reprobe your blot or run multiple gels conserve sample, time, and reagents.

Simultaneously image up to three proteins when you have the flexibility of two NIR channels (at 660 and 785 nm) and three visible channels (at 460, 526, and 628 nm; Figure 1).

⁶⁶ The system is fast and easy to use. I load the membrane on the tray and choose my imaging method with the touch of a button. I especially like how it records multiple cumulative images, so I never need to re-expose the membrane. ""

Rajkumar | Scientist | Biotech Company

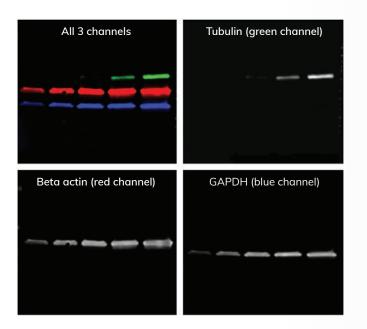
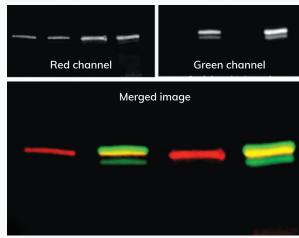


Figure 1. Digital image of 3-color western blot using Azure Biosystems c600 imager. Lanes (from left to right) loaded with 1, 2, 5, 10, 20 µg HeLa cell lysate. Probed for tubulin (top), beta actin (middle) and GAPDH (bottom). The following settings were used: Light sources 6/7/4; Exposure time 1s/13s 204ms/677ms; Filter positions 6/7/4; Aperture 6400; Focus 5000/5250/5000; bin level 1x1.

Easily resolve and quantify co-migrating bands, such as phosphorylated versus non-phosphorylated protein forms (Figure 2).



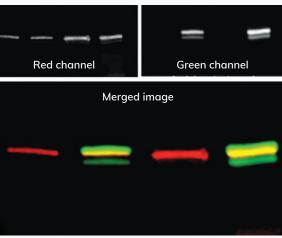
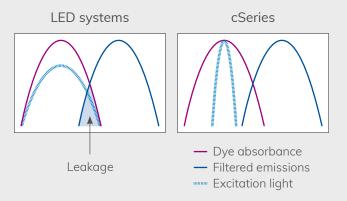


Figure 2. Fluorescent western blot of STAT1 and phospho-STAT1. The blot was probed with antiphospho-STAT1 and anti-STAT1 followed by fluorescent secondary antibodies, and then imaged on Azure cSeries. Top right is the green channel, using IR-800; top left is the image of the red channel, using IR-700. Bottom image is both channels merged. Lanes are the same as in Figure 1.

DESIGNED TO DELIVER NIR lasers keep signal high and background low



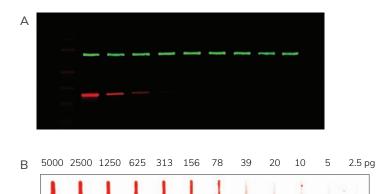
Our high-performance NIR lasers deliver robust excitation energy which maximizes emission strength for optimal sensitivity.

In addition, because lasers deliver an inherently narrower excitation band than LEDs—lasers emit a coherent. collimated beam of light—they avoid the overlap in excitation and emission signals that can occur with LED light sources. This results in ultra-low background signal, enabling faster, more sensitive NIR fluorescence detection.

c600 | c500 | c400 Dig Deeper: Visible Fluorescence Imaging (continued)

ROBUST QUANTITATION

Get sensitive, quantitative NIR detection that's faster than a competitor's system (Figure 3).



Azure, 40 second exposure



Competitor's laser scanner system, 5 minute exposure

Figure 3. (a) Two color Western blot imaged with IR 700 and IR 800. (b) Azure performs equal to a competitor's laser scanner system, 7.5-times faster. A serial dilution of IR 700 antibody shows that the limit of detection is the same.

WIDEST DYNAMIC RANGE

Through a combination of 16-bit imaging and low background noise (Figure 4), the cSeries offers the widest dynamic range of any comparable CCD-based imaging system on the market. Efficiently acquire more data in a single experiment for faster workflows.

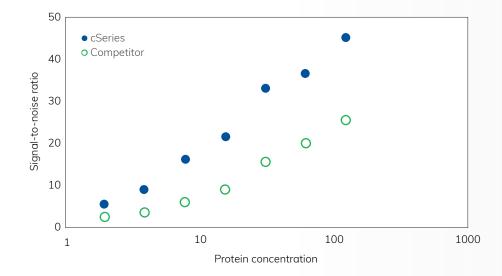
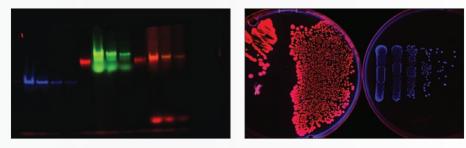


Figure 4. Comparison of the signal-to-noise ratio from blots analyzed with the cSeries and a competitor show that across the range of protein concentrations, the cSeries consistently delivers superior signal-to-noise ratios.

BEYOND THE BLOT



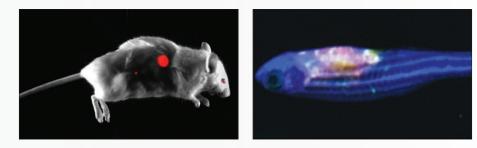


Figure 7. Mouse with RFP-labeled subcutaneous tumor.

DESIGNED TO DELIVER RGB LEDs maximize flexibility and value

What truly sets the cSeries apart from other comparable systems is the ability to image more than just blots. Sure, in-gel fluorescence (Figure 5) and media plates (Figure 6) are not much of a stretch, but it's the cSeries' unmatched depth-of-field that enables imaging more three-dimensional samples such as mice (Figure 7) and zebrafish (Figure 8).

Figure 5. Fluorescent protein native gel.

Figure 6. GFP- and mCherryexpressing E. coli.

Figure 8. GFP-expressing zebrafish.



The cSeries's full-color RGB LEDs expand your imaging capabilities to visible fluorescence wavelengths, increasing flexibility and expanding multiplexing options while keeping system-size compact and value high.

If you need even more performance, take a look at our Sapphire[™] Biomolecular Imager, which is an all laser imaging system—visit azurebiosystems.com/sapphire to learn more

c600 | c500 | c400 | c300 Dig Deeper: Chemiluminescent Imaging

Just as sensitive as film, but easier and more quantitative, our cSeries imaging systems will revolutionize your chemiluminescent workflows and virtually eliminate your darkroom.

THE SAME SENSITIVITY AS FILM...

Using high resolution, F 0.95 fast lens technology, you can capture images with the same sensitivity as film (Figure 9a).

...WHILE MORE QUANTITATIVE

The broad dynamic range of cSeries instruments results in the ability to accurately quantify proteins over several orders of magnitude (Figure 9b).

⁶⁶ One person in the lab was resistant to switching to digital imaging at first, but has since come around because of the convenience, ease of use, and images that are equal to or better than film.

> Ann | Senior Research Technologist Academic Research Institution

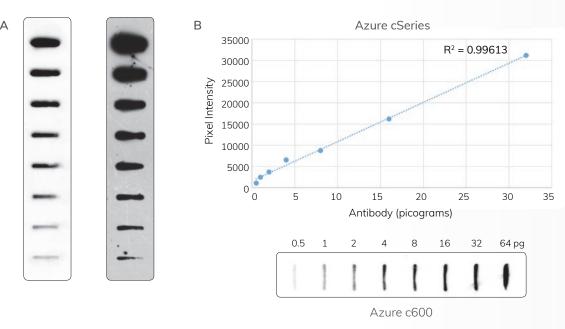


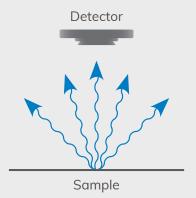
Figure 9. (a) Two slot blots of serially diluted HRP-coupled secondary antibodies were prepared on nitrocellulose. Both blots were treated with a substrate. Left: Imaged on the Azure cSeries for 2 minutes. Right: Imaged on film for 2 minutes. (b) Azure cSeries gives a linear response to a serial dilution of an HRP-coupled antibody.

CLEARLY SEE OUR CAPABILITIES

At Azure Biosystems, we believe that potential customers should know exactly how well an instrument will perform before making a purchasing decision, which is why we are proud to show realworld quantitative data with each experiment's limit of detection (LOD) clearly shown (see Figures 3 and 9). Of course, LODs are subject to your experimental setup and may be lower than these examples, so be sure to arrange an instrument demo to see how well the cSeries works for your studies.

do is ask!

In addition, our instruments are backed by a one-year warranty, with extended warranty and service packages also available for purchase.



DESIGNED TO DELIVER

Direct detection

maximizes sensitivity

BUY WITH CONFIDENCE

We offer full customer support before and after your purchase, whether you have questions about the instrument or a new experimental approach, such as transitioning from chemiluminescence to visible fluorescence or in-depth training on our AzureSpot software. This includes one-on-one consultations with our sales reps and even on-site workshops—all you have to

With a very short and direct path from the sample to the detector-no bends-no mirrors, the cSeries maximizes light-collection for reliably sensitive imaging.

In addition, the increased sensitivity reduces the need for binning during chemiluminescence imaging, enabling acquisition of images that are both high resolution and high sensitivity.

DESIGNED TO DELIVER Flexibility maximizes image acquisition

BINNING: OPTIMIZE SENSITIVITY AND RESOLUTION

With a CCD camera, you can combine multiple pixels into a single larger pixel or "super pixel," to collect more light, a technique known as binning. An unbinned image (also known as a "1X1"), uses the full resolution of the camera during image capture. A binning of 2X2 means that the areas of 4 adjacent pixels are combined into one larger pixel, and so on. On-chip binning enables significant increases in signal without increasing noise, for highly sensitive detection.

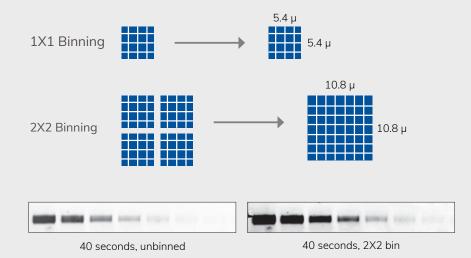


Figure 10. The cSeries's high resolution and flexible binning capabilities up to 5 levels of binning—ensures optimal image acquisition for chemiluminescent Western imaging.

Powerful AzureSpot Analysis Software

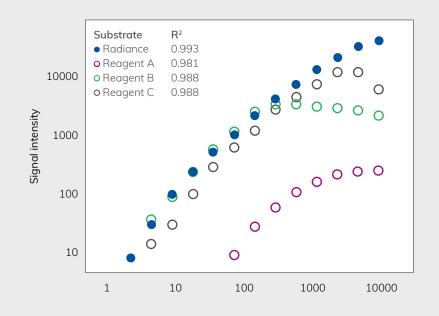


Providing tools to analyze gels, blots, and more, AzureSpot software makes complex analysis a simple process. Designed to be either fully automated or manual, AzureSpot provides flexibility and accuracy for data analysis.

- Automatic lane creation
- Band detection
- Background subtraction
- Molecular size/pl calibration
- Quantity calibration
- Colony counting
- Array analysis (for 96-well plates and microarrays)
- Annotation for comments and highlighting the image

DESIGNED TO DELIVER Reagents optimized for quantitation

even greater sensitivity.



CHEMILUMINESCENCE

All reagents are not created equal. Azure's Radiance chemiluminescent Western blot substrate is clearly better optimized for quantitation than the alternatives, with high sensitivity and a wider linear range than other chemiluminescent reagents.

We also offer Radiance PLUS for applications where you need

FLUORESCENCE

We also offer fluorescently-labeled secondary antibodies that deliver unparalleled sensitivity and performance for immunoblotting applications when used in conjunction with Azure's Western blotting systems. Choose from AzureSpectra 550-, 650-, 700- and 800-labeled antibodies in the following formats:

- Goat-anti-rabbit
- Goat-anti-rat
- Goat-anti-mouse
- Goat-anti-human
- Goat-anti-chicken
- Goat-anti-guinea pig
- Donkey-anti-goat

A SNAPSHOT OF COMPATIBLE DYES*

- Alexa Fluor[®] 488
- Alexa Fluor 546
- Alexa Fluor 555
- Alexa Fluor 633
- Alexa Fluor 647
- Alexa Fluor 680
- Chemiluminescence
- Coomassie Blue
- Coomassie Fluor[™]
- Orange
- Cy[®]2
- Cy[®]3
- Cy[®]5
- Deep Purple[™]
- DyLight[®] 488
- DyLight 550
- DyLight 633
- DyLight 650
- DyLight 680
- DyLight 755
- DyLight 800
- ECL Plex[™]
- Ethidium Bromide
- *Other dyes are also possible. Compatible dyes depend on your system configuration.

Space-saving Design



Specifications

- Camera
- Cooling
- 7 Position Filter Wheel
- UV 302/365 nm
- EPI Blue LED
- Chemiluminescence
- Visible Fluorescence Imaging
- NIR Fluorescence Imaging
- Field of View
- Footprint ($W \times H \times D$)

Imaging Viral Load in Ch		
Introduction	Results and Conclusions	
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	visus infects, the emirge more industrialization, and the visus is detected Descelored for endorse.	
Methods		
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	Figure 3. MAY #279 No. VIII (sell) analysia #279 VIII (right).	

Imaging Viral Load in Chicken Embryos

SYBR[®] Green • SYBR Gold

• GelStar®

IRDye[®] 650

IRDye 680LT

IRDye 680RD

IRDye 700DX

IRDye 800CW

IRDye 800RS

• Qdot[®] 525

• Qdot 605

• Qdot 655

• Qdot 705

• Qdot 755

Silver Stain

IRDye 750

- SYBR Safe
- SYPRO[®] Orange
- SYPRO Red

- SYPRO Ruby
- SYPRO Tangerine

• Qdot 565 • Qdot 585



HIGHLIGHTED APPLICATION NOTES

Visit azurebiosystems.com/learn/application-notes for a complete listing of application notes.

Western Blot Normalizatio		
formalization is ortified for obtaining accurate.	Nousetenairs onlines are often used as normalization	
suardiative data from Western Istols, Narrodication	controls. These projects are required for basic ordidar	
accounts for unequal loading of samples across the lanes.	functions and may be constitutively expressed at a	
in a pt, and far differences in transfer efficiency across	consistent level across many cell types. Beveral proteins	
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	demonsholed that I is not always safe to assume that	
in loading control. More workly, lodg protein	Dece bound-reging profess are expressed at constant levels in different cell lives or losse bores, or that their	
normalization (TPN) methods have been developed, in	levels in different self lines or losser types, or that their expression is unaffected by espectroential conditions. ¹⁴	
which the relative abundance of the protein of interest is	Therefore, it is important to validate any protein selected	
compared to the total protein content of the sample.	as a normalization control for use with your sample types	
Normalization using a single protein	and experimental conditions.	
	Some of the more popular househeesing proteins used as	
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constant locels in every sample. The normalization control can be a sure under softed into each sample.	expressed loading control.	
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The normalization control in the sample should be similar	charge due to experimental conditions.	
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within the linear range at detection in the samples laaded	should be within the dynamic sample of detection.	
un the gel.	Advantages to using single proteins for normalization	
For each sample, the relative abundance of the protein of interest is determined by calculating the ratio of the	Validated, cost effective artification are available from	
of interest is determined by satisfiating the ratio of the intensity of the stand for the anishin of interest to that	many companies	
of the normalization control. For qualitative comparison.	- No new shifts or explorised are readed	
images of the bac bands may be shown need to each		
other. For accurate quantilative results, the proble-	Disadvantages to using single proteins for normalization	
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same late. Prolong duplicate lates does not control for differences in transfer efficiency, or for loading errors that	 Unless Businesienti defesilisi is used, the commutization control must have a substantiativ 	
differences in transfer efficiency, or for loading errors that may occur when precaring one or both only.	different maleudar weight Dan De unider.	

Western Blot Normalization



DNA Dye Detection Limits using Azure cSeries Imagers

miner rype of mention are	est for Your Pr	otein?	
To perform a Weatern blot, proteins are separated according to molecular weight by electrophenesis through a polyeonylamitie gel. The proteins are then bandwords from the get onto a solid membrane support for subsequent immunoblection by protein-	attached electrodes and the proteins migrate out of the pel onto the membrane following the current applied timogh the terrelet indire. Differ aim or pale electrodes are contained within the tank. This tank is used if or most general Watern		
specific antibodies. Transfer occurs by applying an electric field to the gal, which induces migration of	bioting applications.		
sharped prateries out of the get tewards the direction of an oppositely charged electrocie. In most systems,	Using a well transfer apparatus, both intervals (1-2)		
negatively charged proteins migrate out of the gel towards the positively charged electrock.	boury or tower showing sourceipped standards can be performed. This allows to cophinizing transfer coordinates for each individual granish. Transfer times one to shorthered to prevent transfer of two measures weight prevents through the remotance while larger transfer times can be used to portune complete migration high molecular weight proteil out of the get.		
Transfers san be performed to (seef) basedw, in which standar occurs while the period materiana as submerged under a buffer in a tank apparatus, or under semi-day conditions, in which transfer occurs befores the site-tool paties. The type of transfer appeara, used can alter the eff isency of transfer appeara, used can alter the eff isency of transfer of proteins out of the out and memory of transfer			
the membrane. The benefits and dravibacios of each	Drawbacks to wet transfer		
system should be taken into consideration when aptimizing transfer conditions for a protein.	The bandler pracess generates heat, which can decrease the resistance of the transfer buffer resulting in inconsistent transfer across the cell. His		
Wet transfer	heat can also result in breat	kdown of the gel itself."	
To perform a wet transfer, a transfer "stack" is built consisting of a transfer sponge, filter paper, membrane, ppl. filter paper and a second transfer	prior to use. In addition, the transfer buffer should be processed by the should kept cold claring transfer. Long transfers are often		
spongo. Prior to ossembling the stock, all ports (including the get) are equilibrated in transfer	Wet transfer		
buffer. The stack is placed inside a plastic cases the	Advantages	Deadvarlages	
hat is then submerged in transfer buffer within a tank. Bestricity is applied to the tank through	Finalize: multiple transfer conditions can be adjusted easily Multiple buffers to continue transfer	Heading of buffer can interfere with transfer Costing mechanism and/or cald room space resulted during bonder	
m - m - k	Transfers Israad mateouter weight sampe at one time Extended learniter	· Lange volumes of brand	
LP 55550 55550	· Can be used for		

Wet or Dry? Which Type of Transfer is Best for Your Protein



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