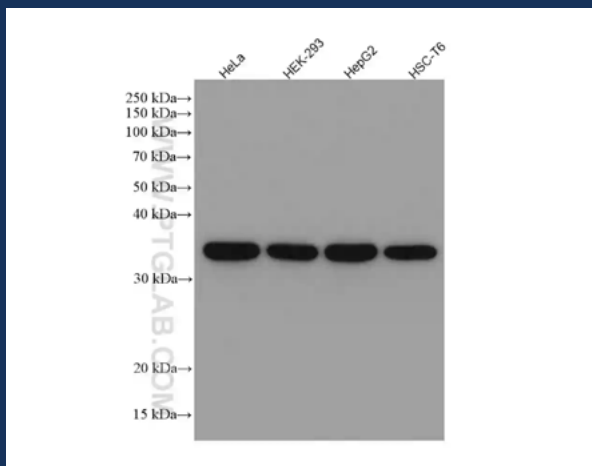


Perfect Your Western Blots with Proteintech Reagents

While western blotting appears technically simple, it can be daunting when it comes to generating perfect, crisp western blot images for publications. Fortunately, there is a lot of room to optimize your western blots which starts with the use of high-quality reagents for performing your experiments.

Proteintech reagents that can help you achieve publication worthy western blot results:

- ✓ Primary Antibodies
- ✓ Secondary Antibodies
- ✓ Secondary Nanobodies
- ✓ Control Antibodies
- ✓ Chemiluminescent Substrates
- ✓ Protein Ladders



GAPDH Monoclonal Antibody (60004-1-Ig)

Primary Antibodies

- Rabbit polyclonal or mouse monoclonal antibodies
- Recombinant rabbit monoclonal antibodies
- Unconjugated antibodies
- CoraLite® dye or HRP-conjugated antibodies

◀ Figure 1. Various lysates were subjected to SDS PAGE followed by western blot with 60004-1-Ig (GAPDH antibody) at dilution of 1:50,000 incubated at room temperature for 1.5 hours.

60004-1-Ig is cited in >10,000 publications

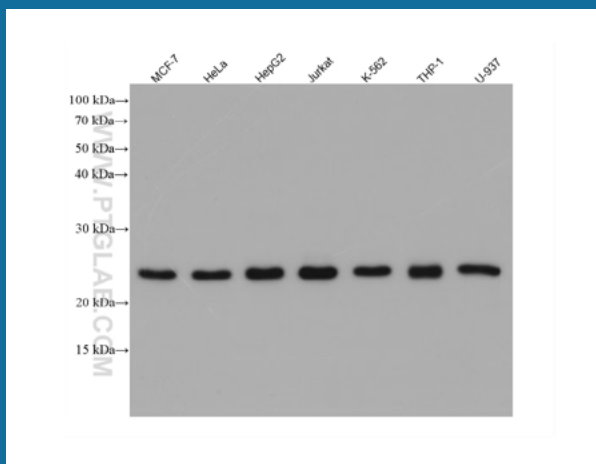
Scan here to view our full
selection of primary antibodies



Secondary Antibodies

- Polyclonal secondary antibodies conjugated to HRP or CoraLite® dyes
- Multi-rAb recombinant secondary antibodies conjugated to HRP or CoraLite® dyes

◀ Figure 2. Various lysates were subjected to SDS-PAGE followed by western blot with rabbit anti-PSMB1 polyclonal antibody (11749-1-AP) at dilution of 1:10,000. Multi-rAb HRP-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR001) was used at 1:20,000 for detection.



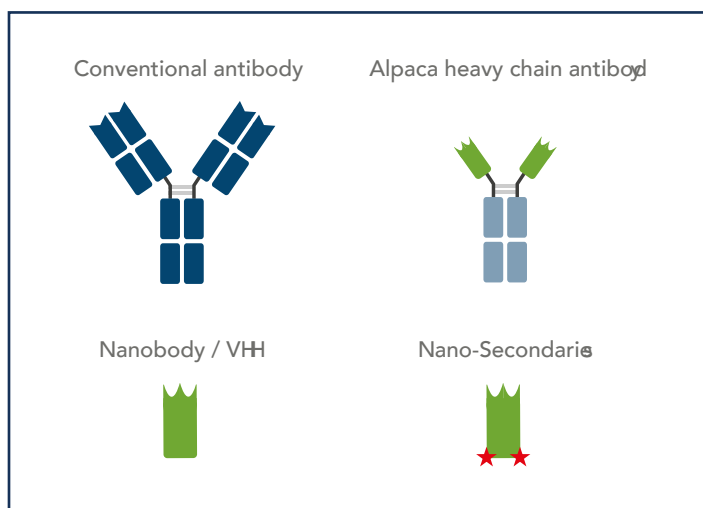
Multi-rAb HRP Recombinant Secondary (RGAR001)

Scan here to view our full selection of secondary antibodies

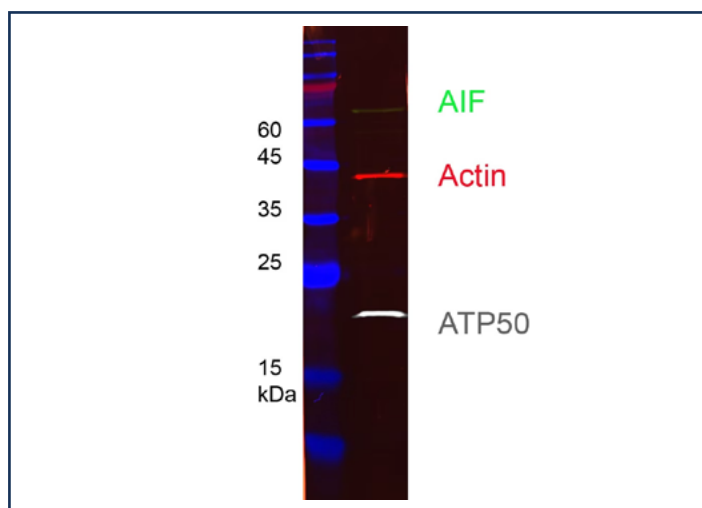


Nanosecondary Reagents

Nanosecondary Reagents are a novel class of secondary antibodies consisting of Nanobodies/ VHHs conjugated to fluorescent dyes. Due to their high isotype specificity and the absence of cross-reactivity, Nanosecondary Reagents bind only to primary antibodies of a specific isotype



▲ Figure 3. Nanobodies are the antigen binding domains or variable heavy domain of heavy chain antibodies (VHHs) from alpacas, llamas, or camels and are the smallest known antibodies (~12-15 kDa vs ~150 kDa of conventional IgG antibodies). Nano-Secondaries are Nanobodies conjugated to fluorescent dyes binding to conventional antibodies.



▲ Figure 4. Multiplex fluorescent western blot of AIF, Actin and ATP50 in HEK293T cell lysates. Western blot membrane was simultaneously incubated with primary antibodies and Nano-Secondaries. Green: mouse anti-AIF + alpaca anti-mouse IgG2a VHH CoraLite Plus 488. Red: mouse anti-Actin + alpaca anti-mouse IgG2b VHH CoraLite Plus 555. White: mouse anti-ATP50 + alpaca anti-mouse IgG1 VHH CoraLite Plus 750.

Nano-Secondaries for multiplex fluorescent western blots

Product Name	Conjugate	Species Reactivity	Catalog No.
Nano-Secondary® alpaca anti-human/anti-rabbit IgG, recombinant VHH [CTK0101, CTK0102]	Alexa Fluor® 488	Rabbit, Human, Macaque	srbAF488-1
	Alexa Fluor® 568	Rabbit, Human, Macaque	srbAF568-1
	Alexa Fluor® 647	Rabbit, Human, Macaque	srbAF647-1
Nano-Secondary® alpaca anti-mouse IgG1, recombinant VHH [CTK0103, CTK0104]	Alexa Fluor® 488/ CoraLite® Plus 488	Mouse	sms1AF488-1/ smsG1CL488-1
	Alexa Fluor® 568/ CoraLite® Plus 555	Mouse	sms1AF568-1/ smsG1CL555-1
	Alexa Fluor® 647/ CoraLite® Plus 647	Mouse	sms1AF647-1/ smsG1CL647-1
	CoraLite® Plus 750	Mouse	smsG1CL750-1
Nano-Secondary® alpaca anti-mouse IgG2a, recombinant VHH [CTK0114]	CoraLite® Plus 488	Mouse	smsG2aCL488-1
	CoraLite® Plus 555	Mouse	smsG2aCL555-1
	CoraLite® Plus 647	Mouse	smsG2aCL647-1
Nano-Secondary® alpaca anti-mouse IgG2b, recombinant VHH [CTK0105, CTK0106]	CoraLite® Plus 750	Mouse	smsG2aCL750-1
	Alexa Fluor® 488/ CoraLite® Plus 488	Mouse	sms2bAF488-1/ smsG2bCL488-1
	Alexa Fluor® 568/ CoraLite® Plus 555	Mouse	sms2bAF568-1/ smsG2bCL555-1
	Alexa Fluor® 647/ CoraLite® Plus 647	Mouse	sms2bAF647-1/ smsG2bCL647-1
Nano-Secondary® alpaca anti-mouse IgG3, recombinant VHH [CTK0107]	CoraLite® Plus 750	Mouse	smsG2bCL750-1
	Alexa Fluor® 647	Mouse	sms3AF647-1
	CoraLite® Plus 488	Rabbit	srb2GCL488-1
	CoraLite® Plus 555	Rabbit	srb2GCL555-1
Nano-Secondary® alpaca rabbit IgG, recombinant VHH [CTK0119, CTK0120]	CoraLite® Plus 647	Rabbit	srb2GCL647-1
	CoraLite® Plus 750	Rabbit	srb2GCL750-1
	CoraLite® Plus 488	Human	shuGCL488-2
	CoraLite® Plus 555	Human	shuGCL555-2
Nano-Secondary® alpaca human IgG, recombinant VHH [CTK0117]	CoraLite® Plus 647	Human	shuGCL647-2
	CoraLite® Plus 750	Human	shuGCL750-2

Control Antibodies

Running western blots in the presence of appropriate controls is key to ensure correct interpretation of experimental results and for generating publication worthy data. Proteintech offers a wide range of tag/control antibodies as indicated in the table below.

Loading control antibodies					Isotype control antibodies	Tag antibodies
Whole cell/cytoplasmic proteins	Mitochondrial proteins	Nuclear proteins	Plasma membrane proteins	Serum samples		
Alpha actin Beta actin Alpha tubulin Beta tubulin Gamma tubulin GAPDH Vinculin	COX1V COX412 HSP60 VDAC1/Porin	Lamin A/C Lamin B1 PCNA Histone H1 Histone H3 TBP	ATP1A1	Transferrin	Mouse IgG1 Mouse IgG2a Mouse IgG2b Rabbit IgG	Myc Flag His, 6X His GFP GST HA MBP V5 mFC S1

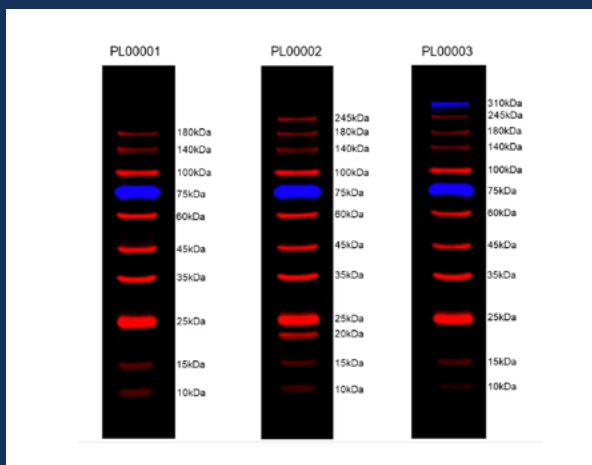
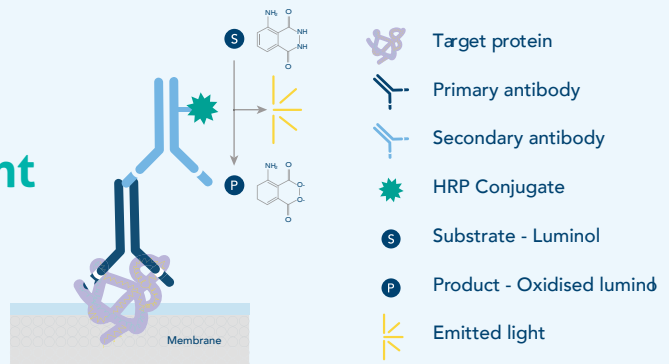


Chemiluminescent Substrates

Proteintech's SignalBright Chemiluminescent Substrate range of SignalBright Pro (PK10011) and SignalBright Max (PK10013) is perfect for the detection of femtogram levels of protein. See the table of comparisons below to select which substrate is right for you.

Conjugate	Species Reactivity	Catalog No.
Sensitivity	Mid/high to high femtogram	Low to mid femtogram
Relative sensitivity to SignalBright Pro	1x	10x
Stable signal duration	>12 hours	>12 hours
Equivalent	SuperSignal™ West Dura	SuperSignal™ West Femto
Primary antibody concentration	0.02 - 1 µg/ml	0.01 - 0.2 µg/ml
Secondary antibody concentration	4 - 20 ng/ml	1 - 10 ng/ml

Detect low abundant proteins in precious samples with SignalBright Chemiluminescent Substrates



Protein Ladders

- Standard prestained protein ladder (PL00001)
10-180kDa
- Broad range prestained protein ladder (PL00002)
3-245kDa
- Extra range prestained protein ladder (PL00003)
10-310 kDa

◀ Figure 5. 2 µl protein ladders were loaded in the 8%-18% gel, then electrophoresed and transferred into the PVDF membrane. After blocking, this dual-channel image was taken directly by the Bio-Rad ChemiDoc MP Imaging System.