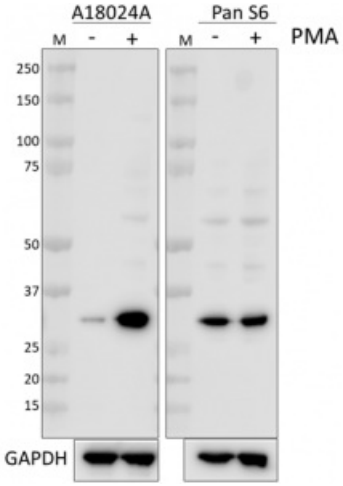
SONY

Product Data Sheet

Purified anti-RPS6 Phospho (Ser244)

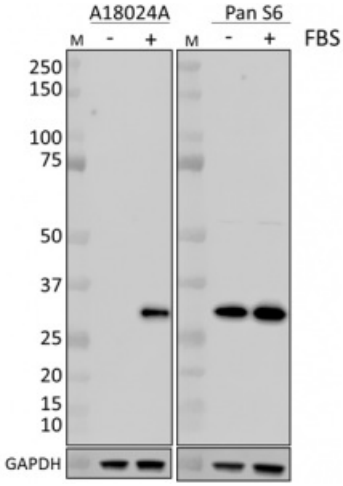
Catalog # / Size:	5278505 / 25 µg 5278510 / 100 µg
Clone:	A18024A
Isotype:	Mouse IgG1, κ
Immunogen:	Synthetic peptide corresponding to human RPS6 phosphorylated at serine 244
Reactivity:	Human, Mouse
Preparation:	The antibody was purified by affinity chromatography.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Concentration:	0.5 mg/mL



Total cell lysates (15 µg protein) from serum-starved SR cells treated without (-) or with (+) 160 nM PMA for 30 minutes were resolved by 4-12% Bis-Tris gel electrophoresis, transferred to a PVDF membrane, and probed with 0.25 µg/mL (1:2500 dilution) of purified anti-RPS6 Phospho (Ser244) antibody (clone A18024A). Proteins were visualized by chemiluminescence detection using HRP goat anti-mouse IgG antibody at a 1:3000 dilution. Equal protein loading was confirmed using a pan RPS6 antibody and Direct-Blot™ HRP anti-GAPDH antibody used at a 1:25000 dilution (lower). Lane M: molecular weight ladder.

Applications:

Applications:	Immunohistochemistry, Intracellular Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by western blotting. For western blotting, the suggested use of this reagent is 0.1 - 1.0 µg/mL. For immunocytochemistry, a concentration range of 1.0 - 5.0 µg/mL is recommended. For intracellular flow cytometry using our True-Phos™ Perm Buffer, the suggested use of this reagent is ≤ 0.5 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.



Total cell lysates (15 µg protein) from serum-starved NIH/3T3 cells treated without (-) or with (+) 20% FBS for 30 minutes were resolved by 4-12% Bis-Tris gel electrophoresis, transferred to a PVDF membrane, and probed with 0.25 µg/mL (1:2000 dilution) of

Application Notes:

Sony offers two clones against this target, A18024A and A18024B:

For western blotting, A18024B displayed a higher affinity for RPS6 Phospho (Ser244) compared to A18024A. Both clones exhibit mouse reactivity.

For ICC, A18024B displayed a moderately higher affinity for RPS6 Phospho (Ser244) compared to A18024A. Both clones are mouse reactive for this application, and both clones are compatible with Triton X-100 and methanol permeabilization steps.

For ICFC, A18024A works in all three ICFC buffers (Cat# 425401, 421002, 424401). For ICFC, A18024A weakly stains mouse RPS6 Phospho (Ser244). A18024B is not recommended for ICFC due to high background staining.

Both clones are predicted to react with rat RPS6 when phosphorylated at serine 244 due to complete sequence homology between the immunizing sequence and the rat RPS6 ortholog.

purified anti-RPS6 Phospho (Ser244) antibody (clone A18024A). Proteins were visualized by chemiluminescence detection using HRP goat anti-mouse IgG antibody at a 1:3000 dilution. Equal protein loading was confirmed using a purified anti-RPS6 antibody and Direct-Blot™ HRP anti-GAPDH antibody used at a 1:25000 dilution (lower). Lane M: molecular weight ladder.

Description:

Ribosomal protein S6 (RPS6) is a key component of the small 40S ribosomal subunit and is the major substrate of protein kinases in eukaryotic ribosomes. In response to various cellular stimuli such as mitogenic stimulation, insulin, and increased nutrient availability, upstream kinases such as RSK and p70 kinases phosphorylate RPS6 at multiple serine sites. These modifications facilitate the recruitment of the 7-methylguanasine cap complex, thereby promoting the assembly of the translational pre-initiation complex and increased cellular protein synthesis capacity. RPS6 has been shown to be hyperphosphorylated in certain cancers, and phosphorylation is a critical determinant of pancreatic β–cell size and systemic glucose homeostasis function in diabetic mouse models.

Antigen References:

1. Jefferies HB, *et al*. 1997. *EMBO J*. 16:3693.
2. Ruvinsky I, *et al*. 2005. *Genes Dev*. 19:2199-211.
3. Schumacher AM, *et al*. 2006. *Biochemistry*. 45:13614.
4. Roux PP, *et al*. 2007. *J Biol Chem*. 282:14056.
5. Stevens C, *et al.* 2009. *J Biol Chem*. 284:334.
6. Schlafli P, *et al.* 2011. *FEBS J*. 278:1757.