Anti-Phospho-p70 S6 Kinase (S434) Antibody [2G1] RT1456

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IP, IF, IHC-P
Molecular Wt:	70kDa
Clone number:	2G1

Description: In studies to elucidate key regulatory pathways in signal transduction, several protein serine/threonine (Ser/Thr) kinases have been identified. Included among such kinases are two distinct families of 40S ribosomal protein S6 Ser/Thr kinases present in somatic animal cells, designated p70 S6 kinase and p90 Rsk kinase. p90 Rsk kinase is maximally activated within minutes of addition of growth factors or phorbol ester to cultured cells followed by activation of p70 S6 kinase. Both enzymes are regulated by serine/threonine phosphorylation, suggesting that specific kinases may exist upstream in the signaling pathway that regulate these kinases. In fact, evidence suggests that one such family of activating enzymes includes the members of the ERK MAP kinase family. The ERK MAP kinases are, in turn, regulated by phosphorylation at threonine and tyrosine residues by a protein kinase designated MEK.

Immunogen: A sequence containing Ser 434 phosphorylated p70 S6 kinase α of human origin.

Positive control: HEK293, NIH/3T3, human esophagus tissue.

Subcellular location: Cytoplasm, Nucleus

Database links: SwissProt: P23443 Human

Recommended Dilutions:

WB	1:100-1:1,000
IP	1-2 μg per 100-500 μg of total protein(1 ml of cell lysate)
IF	1:50-1:500
IHC-P	1:50-1:500

Storage Buffer: 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Storage Instruction: Store at +4℃

Purity: Protein A affinity purified.

Images

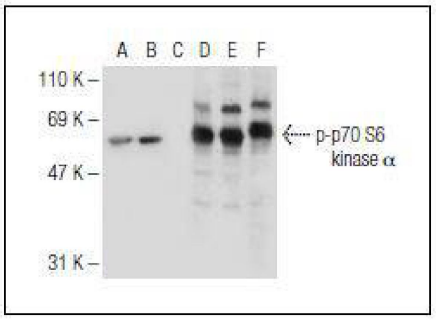

Fig1: Western blot analysis of p70 S6 kinase α phosphorylation in untreated (A,D), insulin treated (B,E) and insulin treated and lambda protein phosphatase treated (C,F) HEK293 whole cell lysates. Antibodies tested include p-p70 S6 kinase α (2G1) (A,B,C) and p70 S6 kinase α (D,E,F).

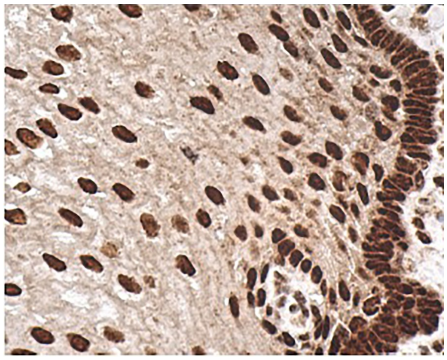

Fig2: Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing nuclear staining of squamous epithelial cells.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Huang, L., et al. 2011. Mitochondria associate with P-bodies and modulate microRNA-mediated RNA interference. J. Biol. Chem. 286: 24219-24230.
2. Bachelot, A., et al. 2010. Sequence variation analysis of the prolactin receptor C-terminal region in women with premature ovarian failure. Fertil. Steril. 94: 2772-2775.