AB-PK701

MELK-pY438 Antibody

Phosphosite-specific rabbit polyclonal antibody for MELK. This phosphotyrosine-site antibody is highly specific for phosphotyrosine.

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Target Protein

Protein Name Long:	Maternal embryonic leucine zipper kinase
Protein Alias:	hMELK; hPK38; KIAA0175; Maternal embryonic leucine zipper kinase; MELK; pEg3 kinase; Protein kinase PK38
UniProt ID:	Q14680
Protein Molecular Mass:	74,642 Da (651 AA; Q14680); 71,174 Da (619 AA; Q14680-6); 70,150 Da (610 AA; Q14680-7); 69,116 Da (603 AA; Q14680-8); 66,547 Da (580 AA; Q14680-5); 66,399 Da (580 AA; Q14680-2); 59,576 Da (520 AA; Q14680-4); 52,528 Da (457 AA; Q14680-3)

Immunogen

Antibody Immunogen Source:	Human MELK sequence peptide Cat. No.: PE-04AOA01
Antibody Immunogen Sequence:	NEE(pY)FMF(bA)C
Antibody Immunogen Description:	Corresponds to amino acid residues N435 to F441; in the C-terminal third of the protein kinase. The effect of Y438 phosphorylation is unclear. This is the major *in vivo* phosphorylation site in MELK (≥210 reports from high throughput mass spectrometry studies recorded in PhosphoSitePlus). MELK is known to be phosphorylated at this site *in vitro* by MELK.
Antibody Target Type:	Phosphosite-specific

Production

Antibody Host Species:	Rabbit
Antibody Type:	Polyclonal
Antibody Isotype:	IgG
Production Method:	The immunizing peptide was produced by solid phase synthesis on a multipep peptide synthesizer and purified by reverse-phase hplc chromatography. Purity was assessed by analytical hplc and the amino acid sequence confirmed by mass spectrometry analysis. This peptide was coupled to KLH prior to immunization into rabbits. New Zealand White rabbits were subcutaneously injected with KLH-coupled immunizing peptide every 4 weeks for 4 months. The sera from these animals was applied onto an agarose column to which the immunogen peptide was thio-linked. Antibody was eluted from the column with 0.1 M glycine, pH 2.5. Subsequently, the antibody solution was neutralized to pH 7.0 with saturated Tris.
Amount:	25 µg
Antibody Concentration:	0.5 mg/ml
Lot Numbers:	150305
Storage Buffer:	Phosphate buffered saline pH 7.4, 0.05% Thimerasol
Storage Conditions:	For long term storage, keep frozen at -40°C or lower. Stock solution can be kept at +4°C for more than 3 months. Avoid repeated freeze-thaw cycles.
Storage Stability:	>2 years

Applications

Product Use:	Western blotting | Antibody microarray
Antibody Dilution Recommended:	2 µg/ml for immunoblotting
Antibody Species Reactivity:	Human | Chimpanzee | Rhesus Macaque | Platypus
Antibody Positive Control:	The observed molecular mass of the processed target protein on SDS-PAGE gels is reported to be around 70-75 kDa.
Antibody Potency:	Medium immunoreactivity with recombinant human MELK on protein dot blots.
Antibody Specificity:	Very high
Antibody Cross Reactivity:	No significant cross-reactive proteins detected in phenylarsine oxide (PAO)+vanadate-treated HeLa cells, EGF-treated A431 cells and insulin-treated MCF7 cells, when these cells were homogenized in SDS-PAGE sample buffer.