Monoclonal Antibody to MAPK7 / ERK5 (incl. pos. control) - Purified

Alternate names: Big MAP kinase 1, ERK4, Extracellular signal-regulated kinase 5, MAPK7, Mitogen-activated protein kinase 7

Catalog No.: AM00058PU-N
Quantity: 0.1 mg

Background: Erk5 (also known as MAPK7 or big mitogen activated kinase 1, BMK1) belongs to the Ser/Thr protein kinase family. It contains a T E Y motif in the activation loop similar to Erk1/2. Extracellular signals, including receptor tyrosine kinases and G-protein-coupled receptors as well as osmotic and oxidative stress lead to Erk5 activation by MEK5. The Erk5 pathway plays an important role in cellular proliferation, differentiation and survival.

Uniprot ID: Q13164
NCBI: NP_002740.2
GeneID: 5598
Host / Isotype: Mouse / IgG1
Clone: 12F2
Immunogen: Peptide conjugated to Hemocyanin.
Epitope: N-Terminus.

Format: State: Lyophilized purified Ig fraction
Purification: Size Exclusion Chromatography
Buffer System: 1 ml PBS containing 0.09% Sodium Azide, PEG and Sucrose
Reconstitution: Restore with 1 ml H2O (15 min, RT).

Applications: Western Blot: 0.5 µg/ml for HRPO/ECL detection.
Recommended blocking buffer: Casein/Tween 20 based blocking and blot incubation buffer.
Included Positive Control: Cell lysate from untreated SKOV-3 cells (See Protocols).
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody recognizes MAP kinase 7 (erk5) at 92 kDa in Western-blot applications.
Species: Human, Mouse, Rat, Dog.
Other species not tested.

Storage: Store lyophilized (preferably in a desiccator) at -20°C and reconstituted (aliquot and freeze in liquid nitrogen) at -80°C.
Avoid repeated freezing and thawing.
Thaw aliquots at 37°C. Thawed aliquots may be stored at 4°C up to 3 months.
Shelf life: one year from despatch.

For research and in vitro use only. Not for diagnostic or therapeutic work. Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com
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**Protocols:**

**Positive Control Cell Lysate: SKOV-3 Untreated**

**Format:** Lyophilized cell lysate from Serum starved SKOV-3 cells.

**Reconstitution:** Restore by addition of 200 µl H2O. After complete solubilization add 200 µl 2x SDS-PAGE sample buffer, mix and incubate at 90°C for 5 min.

**Storage:** Aliquot and store frozen. Avoid repeated freeze/thaw cycles.

**Application:** The positive control cell lysate is recommended for immunoblot applications. 20 µl of positive control cell lysate correspond to ca. 80.000 cells. Use 20 µl / lane (mini gel) for HRPO/ECL detection of the target proteins.

**Please note:** The lyophilized cell lysates contain SDS and are not recommended for applications with native proteins such as immunoprecipitation.

**Pictures:**

Detection of endogenous MAPK7 / erk5
Whole cell lysates of serum starved tumor cells (20.000 cells per lane) were applied to SDS-PAGE and transferred to a PVDF membrane. Immunoblots were probed with mab MAPK7-12F2 (0.5 µg/ml) for 1h at RT and developed by ECL (exp. time: 30 sec).
Lane 1: A431
Lane 2: A549
Lane 3: SKOV3
Lane 4: OVCAR5
Lane 5: HaCaT
Lane 6: PC3
Lane 7: HeLa
Lane 8: HepG2