

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse ERK5/BMK1 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human ERK5/BMK1 Met1-Glu432 Accession # Q13164
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

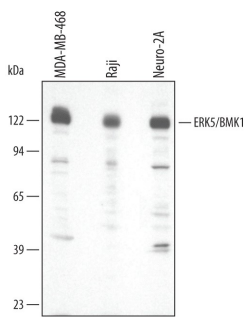
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	10-25 µg/mL	See Below

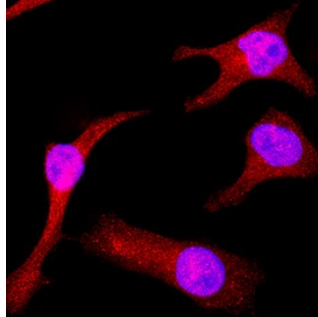
DATA

Western Blot



Detection of Human/Mouse ERK5/BMK1 by Western Blot. Western blot shows lysates of MDA-MB-468 human breast cancer cell line, Raji human Burkitt's lymphoma cell line, and Neuro-2A mouse neuroblastoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse ERK5/BMK1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2848) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for ERK5/BMK1 at approximately 115 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



ERK5/BMK1 in HeLa Human Cell Line. ERK5/BMK1 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Goat Anti-Human/Mouse ERK5/BMK1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2848) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Extracellular signal-regulated kinase 5 (ERK5), also known as big mitogen-activated protein kinase 1 (BMK1) and MAPK7, is activated by a several mechanisms, including receptor tyrosine kinases, G protein-coupled receptors, and osmotic stress. Like ERK1 and ERK2, ERK5 contains the conserved Thr-Glu-Tyr activation motif in its activation loop. Unlike these ERKs, however, ERK5 contains a unique C-terminal domain that regulates its activation and nuclear translocation. ERK5's upstream MAPK kinase has been identified as MEK5.