Human Kallikrein 8/Neuropsin Antibody

Monoclonal Mouse IgG_{2B} Clone # 189004

Catalog Number: MAB1719

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Kallikrein 8/Neuropsin in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) Kallikrein 3, 5, 11, or rhHGFA is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 189004
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Kallikrein 8/Neuropsin Gln29-Gly260 (predicted) Accession # O60259
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 as a 0.2 μm filtered solution in PBS.

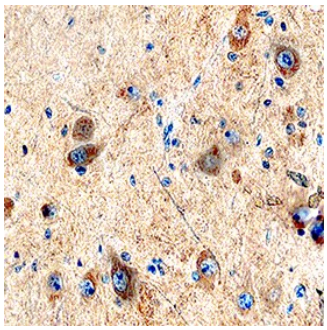
APPLICATIONS

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	Recombinant Human Kallikrein 8/Neuropsin (Catalog # 2025-SE)
Immunocytochemistry	1-25 µg/mL	See Below
Immunohistochemistry	5-25 µg/mL	See Below

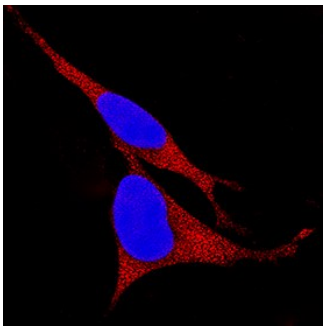
DATA

Immunohistochemistry



Kallikrein 8/Neuropsin in Human Brain. Kallikrein 8/Neuropsin was detected in immersion fixed paraffin-embedded sections of human brain (hippocampus) using Mouse Anti-Human Kallikrein 8/Neuropsin Monoclonal Antibody (Catalog # MAB1719) at 5 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cytoplasm. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Immunocytochemistry



Kallikrein 8/Neuropsin in SH-SY5Y Human Cell Line. Kallikrein 8/Neuropsin was detected in immersion fixed SH-SY5Y human neuroblastoma cell line using Mouse Anti-Human Kallikrein 8/Neuropsin Monoclonal Antibody (Catalog # MAB1719) at 1 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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.** ● 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

Kallikrein 8 (KLK8), also known as neuropsin or ovasin, is a member of the human tissue kallikrein family (1). Two alternatively spliced forms exist, resulting in 260 (isoform 1) and 305 (isoform 2) amino acid (aa) sequences, respectively (2). Isoform 1 consists of a signal peptide (residues 1 to 28), a short pro peptide (aa 29-32) and the mature chain (aa 33-260). Isoform 2 is identical to isoform 1, except that a 45 aa segment is inserted in isoform 2 between aa 23 and 24 in isoform 1. Isoform 1 is predominantly expressed in pancreas whereas isoform 2 is preferentially expressed in adult brain and hippocampus, although both forms are expressed in fetal brain and placenta in comparable levels. The brain function of KLK8 seems evident in neuropsin knockout mice that showed abnormalities of synapses and neurons and predisposation to global seizure activity (3, 4). KLK8 is a novel marker for ovarian and cervical cancer carcinomas (5, 6). Recombinant human KLK8, after being activated by lysyl endopeptidase, can cleave fibronectin and several small peptide substrates (7, 8).

References:

1. Yousef, G.M. and E.P. Diamandis (2001) Endocrine Rev. **22**:184.
2. Mitsui, S. *et al.* (1999) Eur. J. Biochem. **260**:627.
3. Hirata, A. *et al.* (2001) Mol. Cell. Neurosci. **17**:600.
4. Davies, B. *et al.* (2001) J. Neurosci. **21**:6993.
5. Kishi, T. *et al.* (2003) Cancer Res. **63**:2771.
6. Cane, S. *et al.* (2004) Am. J. Obstet. Gynecol. **190**:60.
7. Oka, T. *et al.* (2002) J. Biol. Chem. **277**:14724.
8. Shimizu, C. *et al.* (1998) J. Biol. Chem. **273**:11189.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956