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Human Kallikrein 8/Neuropsin Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF2025

RDsystems

DESCRIPTION		
Species Reactivity	Human	
Specificity	Detects human Kallikrein 8/Neuropsin in direct ELISAs and Western blots.	
Source	Polyclonal Goat IgG	
Purification	Antigen Affinity-purified	
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Kallikrein 8 Gln29-Gly260 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 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	0.1 µg/mL	Recombinant Human Kallikrein 8/Neuropsin (Catalog # 2025-SE)	
Neutralization	Measured by its ability to neutralize Recombinant Human Kallikrein 8/Neuropsin (0.5 μg/mL, Catalog # 2025-SE) cleavage of the fluorogenic peptide substrate Boc-VPR-Amc (100 μM, Catalog # ES011). The Neutralization Dose (ND ₅₀) is typically 8 μg/mL.		

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. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months20 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 sequences, respectively (2). Isoform 1 consists of a signal peptide (residues 1 to 28), a short pro peptide (residues 29 to 32) and the mature chain (residues 33 to 260). Isoform 2 is identical to isoform 1, except that a 45 amino acid segment is inserted in isoform 2 between residues 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 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). This activity can be inhibited by rhSerpin A5, rhSerpin F2 and AEBSF (R&D Systems, Catalog # 1266-PI, 1470-PI and El001, respectively). Recombinant human KLK8 produced by R&D Systems corresponds to isoform 1.

References:

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- 5. Kishi, T. et al. (2003) Cancer Res. 63:2771.
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- 7. Oka, T. et al. (2002) J. Biol. Chem. 277:14724.
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