

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Kallikrein 8/Neuropsin in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) UPA-1, rhKallikrein 1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14, 15, rhKallikrein B1, rhHGFA, rhFactor VII, rhFactor X, rhFactor XI, rhProc, or rhThrombin is observed.
Source	Monoclonal Rat IgG ₁ Clone # 369910
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
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Kallikrein 8/Neuropsin (Catalog # 2025-SE), see our available Western blot detection antibodies
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 (0.1 mM, Catalog # ES011). The Neutralization Dose (ND ₅₀) is typically 0.7 µg/mL.

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. <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

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 predisposition 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:

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5. Kishi, T. *et al.* (2003) *Cancer Res.* **63**:2771.
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