

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Kallikrein 14 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 337903
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Kallikrein 14 Gln19-Met248 Accession # AAD50773
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

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.

Neutralization	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Human tissue kallikreins refer to a group of secreted serine proteases that are encoded by homologous genes clustering on chromosome 19q13.3-4. As a member of this family, human tissue Kallikrein 14 (hKLK14) is present in many tissues, with high levels in breast, skin, prostate, and brain. The 251 amino acid hKLK14 precursor consists of a signal peptide (residues 1 to 18), a pro peptide (residues 19 to 24) and an active protein (residues 25 to 251) (1). Its enzymatic activity has been shown to be mainly trypsin-like (2). However, its physiological substrates and functions are still unclear. Several studies have suggested that hKLK14 may have clinical utility as a biomarker for cancer of the breast, ovary, and prostate (3, 4). In addition, it may be the initiator of a kallikrein proteolytic cascade responsible for the degradation of the adhesion structures in the stratum corneum (2). The purified, secreted rhKLK14 corresponds to the pro form (residues 19 to 248) with a replacement of the last three residues with a His tag at the C-terminus. When activated by thermolysin, it displays enzymatic activity towards a fluorogenic peptide described above. This activity can be inhibited by rhSerpin A4, E1, and F2 (R&D Systems, Catalog # 1669-PI, 1786-PI, and 1470-PI, respectively).

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