Human Kallikrein 13 Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 341419

Catalog Number: FAB2625G

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Kallikrein 13 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) Kallikrein 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, rhKallikrein B1, rhFactorVII, rhHGFA, rhUPA,
Source	Monoclonal Mouse IgG_{2B} Clone # 341419
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Kallikrein 13 Val19-Ile262 Accession # Q9UKR3
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.
Western Blot	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 Kallikrein 13 (hK13) is a member of the human tissue kallikrein family. The gene encoding for rhK13 is termed KLK13 and it resides on chromosome 19q13.3-4 along with fourteen other members of the family. KLK13 spans about 8.7 kb genomic DNA and the longest transcript is 831 bp, encoding for a protein of 277 amino acids (1). Another five shorter splice variants have also been identified. They are specifically expressed in the testicular tissue and encode for five truncated forms of hK13 (2). Due to the aspartic acid residue in the substrate binding pocket, the enzymatic activity of hK13 is predicted be trypsin-like. It has been shown that recombinant hK13 produced in yeast can cleave synthetic peptides after the arginine residue and some extracellular matrix components (3). However, its exact physiological substrates and functions remain obscure. Despite the lack of knowledge on the physiological function of hK13, several studies have demonstrated that hK13 is implicated with cancer of the breast and ovary and it can serve as a favorable prognostic biomarker for these malignancies (4, 5). The 277 amino acid hKLK13 precursor consists of a signal peptide (residues 1 to 18), a pro peptide (residues 19 to 25) and an active protein (residues 26 to 277). The amino acid sequence of hKLK13 is 84%, 81%, and 80% identical to that of canine, mouse and rat.

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Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475