

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Airway Trypsin-like Protease/HAT in direct ELISAs and Western blots. Recognizes the catalytic-domain of recombinant human HAT.
Source	Monoclonal Mouse IgG ₁ Clone # 337029
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Airway Trypsin-like Protease/HAT Ala42-Ile418 Accession # O60235
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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.

Western Blot 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 Airway Trypsin-like protease (HAT), also known as Transmembrane Protease, Serine 11D (TMPRSS11D), is a type II transmembrane serine protease that is expressed in the cells of the submucosal serous glands of the bronchi and trachea (1-3). The deduced sequence predicts a short cytoplasmic tail (aa 120), a transmembrane domain (aa 21-41), and an ectodomain consisting of a SEA domain (aa 44-164) and a catalytic domain (aa 187-418). The single-chain precursor can be converted into a disulfide-linked two-chains, one of which corresponds to the catalytic domain. HAT was initially purified from the sputum of patients with chronic airway diseases (1). HAT has been shown to induce PAR-2 mediated IL-8 release in psoriasis vulgaris and increase mucin expression in airway epithelial cells (4, 5). The amino acid sequence of human HAT is 99%, 79%, and 67% identical to that of chimpanzee, canine and rat/mouse.

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