Human u-Plasminogen Activator (uPA)/Urokinase Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # 204212

Catalog Number: FAB1310T

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human u-Plasminogen Activator (uPA)/Urokinase Catalytic Domain in direct ELISAs and Western blots. In Western blots under reducing conditions, it reacts with the catalytic domain (B chain) only. In Western blots under non-reducing conditions,
Source	Monoclonal Mouse IgG_{2A} Clone # 204212
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human u-Plasminogen Activator (uPA)/Urokinase Catalytic Domain Ser21-Leu431 Accession # P00749
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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.*

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	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

uPA is a serine protease with an extremely limited substrate specificity, cleaving the sequence Cys-Pro-Gly-Arg560-Val561-Val-Gly-Gly-Cys in plasminogen to form plasmin (1). uPA is a potent marker of invasion and metastasis in a variety of human cancers associated with breast, stomach, colon, bladder, ovary, brain and endometrium (2). For example, the combination (both low vs. either or both high) of uPA and its inhibitor, plasminogen activator inhibitor-1 (PAI-1), outperforms the single factors as well as other traditional prognostic factors with regard to risk group assessment for breast cancer, particularly in node-negative breast cancer (3). The human uPA is initially synthesized as 431 amino acid precursor with a N-terminal signal peptide (20 residues) (4-6). The single chain molecule is processed into a disulfide-linked two-chain molecule. The B chain starting at Ile179 corresponds to the catalytic domain. Two forms of the A chain exist, one starting at Ser21 (the long form) and the other at Lys156 (the short form). The resulting two-chain forms have different molecular weights (MW). The B chain is common for both forms whereas the long and short A chains are unique to the high and low MW forms, respectively. The long A chain contains an EGF-like domain, which is responsible for binding of the uPA receptor (uPAR).

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