Human ST7/LRP12 Alexa Fluor® 532-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF2560X
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ST7/LRP12 in direct ELISAs and Western blots. In direct ELISAs, 100% cross-reactivity with recombinant mouse ST7/LRP12 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human ST7/LRP12 Asn28-Ile488 Accession # Q9Y561
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 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

ST7 (Suppressor of Tumorigenicity 7), also known as RAY1, TSG7 and FAM4A1, is a type I transmembrane protein belonging to the LDLR superfamily and is designated LRP12 (1-3). The human ST7 cDNA encodes 859 amino acids (aa) including a 32 aa signal sequence, a 460 aa extracellular domain (ECD) containing two CUB domains and five LDLR class A domains, a 21 aa transmembrane domain, and a 346 aa cytoplasmic domain containing motifs implicated in endocytosis and signal transduction (1, 2). Human ST7 shares 95% aa sequence homology with mouse and rat, 96% with canine, and 98% with bovine, equine and porcine ST7 within the ECD. Genomic sequencing indicates the possibility of up to 18 splicing isoforms, but expression of these has not been well-studied (3). ST7 is widely expressed in normal tissues, especially fibroblasts (1, 4). Highest mRNA levels were detected in heart and skeletal muscle (1). ST7 was originally proposed to be a tumor suppressor protein, but it is not consistently down-regulated in a variety of cancers, either by mutation or loss of heterozygosity (1, 4-7). In certain cancers, expression may even be up-regulated (8). Expression may be associated with down-regulated expression of extracellular matrix molecules that are involved in remodeling, such as SPARC, IGFBP5 and several matrix metalloproteinases, and modulation of *in vivo* tumorigenicity (4, 5).

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