Human Reg1A Alexa Fluor® 488-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4937G
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Reg1A in direct ELISAs. In direct ELISAs, approximately 80% cross-reactivity with recombinant human (rh) Reg1B is observed, approximately 20% cross-reactivity with recombinant mouse Reg1, and less than 5% cross-reactivity with rhReg3A and re
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Reg1A Gln23-Asn166 Accession # P05451
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.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	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

Reg1A (Regenerating gene IA/α; also REG, ICRF, PSPS, PTP and Lithostathine-1α) is a secreted, variably glycosylated 15-22 kDa type I member of the REG gene family of proteins. It is induced in proliferating cell types such as colonic epithelium, islet β-cells, and multiple tumor types, and is constitutively expressed by pancreatic acinar cells. Thus, Reg1A is found both in blood (ng/mL quantities) and pancreatic secretions. It would appear that Reg1A plays a role in blocking apoptosis, and is upregulated by both IL-22 and IL-6. Human Reg1A is synthesized as a 166 amino acid (aa) precursor. It contains a 22 aa signal sequence plus a 144 aa mature region that is characterized by the presence of three intrachain disulfide bonds, one C-type lectin domain (aa 34-164), and a utilized N-terminal O-linked glycosylation site (Thr27). Variablility in the glycosylation pattern, plus proteolytic cleavage after Arg11 generates Reg1A isoforms in the 15-22 kDa range. There is one potential isoform variant that shows an alternative start site at Met9. Mature (aa 23-166) human Reg1A shares 76% and 69% aa sequence identity with mouse and rat Reg1A, respectively.

Reg1B, also known as secretory pancreatic stone protein 2 and lithostathine 1 beta, is a type I subclass member of the Reg family, which comprises secreted proteins with a C-type lectin domain. Reg1B is highly related to Reg1A, a protein that is implicated in islet cell regeneration and diabetogenesis.

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