

#### DESCRIPTION

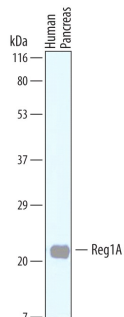
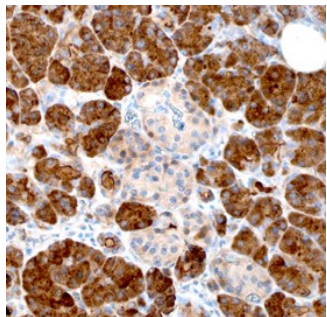
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Reg1A in direct ELISAs. In direct ELISAs, approximately 80% cross-reactivity with recombinant human (rh) Reg1B is observed, approximately 20% cross-reactivity with recombinant mouse Reg1, and less than 5% cross-reactivity with rhReg3A and recombinant rat Reg1A is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human Reg1A Gln23-Asn166 Accession # P05451
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

#### 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

#### DATA

<p><b>Western Blot</b></p>  <p><b>Detection of Human Reg1A by Western Blot.</b> Western blot shows lysates of human pancreas tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human Reg1A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4937) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Specific bands were detected for Reg1A at approximately 20-22 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>Reg1A in Human Pancreas.</b> Reg1A was detected in immersion fixed paraffin-embedded sections of human pancreas using Sheep Anti-Human Reg1A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4937) at 3 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Sheep HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in exocrine cells. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>
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#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### 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). Variability 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.