

Human/Mouse/Rat Intelectin-1/2 Antibody

Monoclonal Mouse IgG₁ Clone # 450515 Catalog Number: MAB42542

DESCRIPTION			
Species Reactivity	Human/Mouse/Rat		
Specificity	Detects human Intelectin-1 and human Intelectin-2 in direct ELISAs. Detects human, mouse, and rat Intelectin-1 and Intelectin-2 in Western blots.		
Source	Monoclonal Mouse IgG ₁ Clone # 450515		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	E.coli-derived recombinant human Intelectin-1 Thr19-Ser298 Accession # Q8WWA0		
Formulation	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

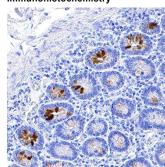
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.5 μg/mL	See Below
Immunohistochemistry	0.5-25 μg/mL	See Below

DATA

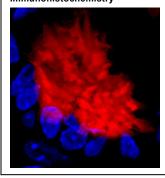
Detection of Human, Mouse, and Rat Intelectin-1/2 by Western Blot. Western blot shows lysates of recombinant human Intelectin-1 (Catalog # 9137-IN), recombinant human Intelectin-2, human small intestine tissue, mouse small intestine tissue, and rat small intestine tissue. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human/Mouse/Rat Intelectin-1/2 Monoclonal Antibody (Catalog # MAB42542) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Intelectin-1/2 at approximately 36-40 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer

Immunohistochemistry



Intelectin-1/2 in Human Small Intestine. Intelectin-1/2 was detected in immersion fixed paraffin-embedded sections of human small intestine using Mouse Anti-Human/Mouse Intelectin-1/2 Monoclonal Antibody (Catalog # MAB42542) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to intestinal glands. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Immunohistochemistry



Intelectin-1/2 in Human Ileum Air-Liquid Interface. Intelectin-1/2 was detected in immersion fixed paraffin-embedded sections of human ileum air-liquid interface using Mouse Anti-Human/Mouse Intelectin-1/2 Monoclonal Antibody (Catalog # MAB42542) at 0.5 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to mucus granules in goblet cells. View our protocol for Fluorescent IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 0.5 mg/mL in sterile PBS.

Shipping 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

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Intelectin-1 (intestinal lectin; also ITLN-1 and omentin) is a 40 kDa Ca-dependent galactofuranose-binding lectin that is not a C-type lectin. It is expressed on multiple cell types and appears to participate in insulin signaling and microbe recognition. The human ITLN-1 preproprecursor is 313 amino acids (aa) in length. It contains an 18 aa signal sequence, a 280 aa mature segment (aa 19-298), and a 15 aa C-terminal proregion that is cleaved to generate a GPI-linkage. One fibrinogen-related domain exists in the mature molecule (aa 36-209). Human ITLN-1 exists as a disulfide-linked glycosylated homotrimer. Mouse ITLN-1 is unglycosylated and a monomer. Mature human ITLN-1 is 82% aa identical to mouse ITLN-1. Human ITLN-1 shows one alternate start site at Met72, and a splice form that contains a 32 aa substitution for aa 264-313.

Intelectin-2 (ITLN-2; also endothelial lectin 2 and HL-2) is a 37-41 kDa, likely Ca-dependent carbohydrate-binding lectin that is a member of the X-lectin family of molecules. It is secreted by intestinal Paneth cells, and appears to participate in fungal microbe recognition. The human ITLN-2 precursor is 325 amino acids (aa) in length (SwissProt #:Q8WWU7). It contains a 26 aa signal sequence and a 299 aa mature region. Although mouse ITLN-2 is reportedly GPI-linked, and mouse and human ITLN-2 show considerable C-terminal aa identity, it is not known if human ITNL-2 is also GPI-linked. There is one fibrinogen-related domain in the mature molecule (aa 44-267). One potential splice variant is reported that shows a premature truncation after Gly264. Over aa 29-324, human ITLN-2 shares 79% aa sequence identity with mouse ITLN-2/ITLN-1b, and 85% aa sequence identity with human ITLN-1.

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