

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Reg4 in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody does not cross-react with recombinant mouse (rm) Reg1, rmReg2, recombinant rat (rr) Reg3B, rmReg3A, rrReg3A, or rhReg1B.
Source	Monoclonal Mouse IgG _{2B} Clone # 200214
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Reg4 Asp23-Pro158 Accession # Q9BYZ8
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 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

Reg4 (regenerating islet-derived protein 4; also named Reg-like protein, RELP, and gastrointestinal secretory protein) is a 17 kDa, secreted glycoprotein belonging to the calcium (C-type) dependent lectin superfamily and the regenerating gene family (1-3). There are three potential isoforms for human Reg4. Isoform 1 is synthesized as a 158 amino acid (aa) precursor with a 22 aa signal sequence and a 136 aa mature chain. Amino acids 30-156 constitute a C-type lectin-like domain, and aa 50 is a site for potential N-linked glycosylation. In addition, amino acids 127 and 142-143 form a ligand-binding surface. In isoform 2, there is a 79 aa substitution for the C-terminal 101 amino acids, while in isoform 3, there is an 11 aa substitution for the C-terminal 57 amino acids. Human Reg4 shares 68% and 67% aa sequence identity with rat and mouse Reg4, respectively. Like other members of the regenerating gene family, Reg4 is expressed in the gastrointestinal (GI) tract and ectopically at other sites in the setting of tissue injury (1, 2). In particular, Reg4 is expressed in normal colon mucosa, and up-regulated in colon adenocarcinoma, pancreatic cancer, gastric adenocarcinoma, inflammatory bowel disease (Crohn's disease and ulcerative colitis), and, outside the GI tract, in prostate adenocarcinoma (2-8). The physiological function of Reg4 is presently unknown, but it may be involved in inflammatory and metaplastic responses of the GI epithelium (3).

PRODUCT SPECIFIC NOTICES

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