Human Chitinase 3-like 2 Alexa Fluor® 488-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF5116G
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Chitinase 3-like 2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant human CHIT-1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Chitinase 3-like 2 Tyr27-Leu390 Accession # Q15782
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.

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

Chitinase 3-like 2 (CHI3L2), also called chondrocyte protein 39 or YKL-39, is a 39 kDa potentially glycosylated member of the glycosyl hydrolase 18 family (1-3). It is secreted by synovial fibroblasts, chondrocytes, and TGFβ/IL-4-stimulated monocyte-derived macrophages (1, 4, 5). The human CHI3L2 cDNA encodes 390 amino acids (aa), including a 26 aa signal sequence and a 364 aa mature region. Potential alternate start sites at Met-24 and Met+80 would create isoforms of 413 aa and 311 aa, while a potential deletion of aa 15-24 would create a 380 aa isoform (6). Mature human CHI3L2 shares 89%, 87% and 84% aa sequence identity with bovine, porcine and equine CHI3L2, respectively. The rodent genome does not include a CHI3L2 ortholog (2). Human CHI3L1 and CHI3L2 share 43% aa sequence identity. Neither shows chitotriosidase activity, but both bind chitin and are thus termed chi-lectins (1-3). Unlike CHI3L1, CHI3L2 does not bind heparin (1). While CHI3L1 is the major protein excreted by chondrocytes, up-regulation of CHI3L2 and not CHI3L1 correlates with osteoarthritic cartilage degeneration (1, 7, 8). CHI3L2 has been proposed as a potential biomarker for osteoarthritis (4, 7, 8). CHI3L1 has been found to coordinate adhesion receptors and promote cell signaling and tumor angiogenesis; like CHI3L1, CHI3L2 can enhance cell adhesion (9).

PRODUCT SPECIFIC NOTICES

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