

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Angiopoietin-like Protein 7/ANGPTL7 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) Angiopoietin-like 1, 5, 7, recombinant mouse (rm) Angiopoietin-like 2, 3, 4, 6, rhAngiopoietin-1, rhA
Source	Monoclonal Rat IgG _{2B} Clone # 538401
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse Angiopoietin-like Protein 7/ANGPTL7 Gln22-Pro337 (predicted) Accession # Q8R1Q3
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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

Angiopoietin-like Protein 7 (ANGPTL7), also known as Corneal-Derived Transcript 6 (CDT6), is a secreted, 45-50 kDa glycoprotein member of the angiopoietin-like family of molecules. Members of this protein family contain an N-terminal coiled coil domain and a C-terminal fibrinogen-like domain (1-3). Mature mouse ANGPTL7 is 316 amino acids (aa) in length. It shares 88% and 98% aa sequence identity with human and rat ANGPTL7, respectively. The ANGPTL7 monomer forms homotetramers via its coiled coil domain (4, 5). ANGPTL7 is expressed in the corneal stroma, trabecular meshwork, and sclera (3, 5). Its production is up-regulated in trabecular meshwork cells by glucocorticoids and TGF-β and in cartilage by TNF-α (5-7). ANGPTL7 expression is up-regulated under conditions of increased ocular pressure (IOP). Since IOP is a risk factor for glaucoma, ANGPTL7 may represent a defense mechanism to reduce pressure on the retina. It appears that IOP is a consequence of increased ECM deposition, a major component of which is fibronectin. In this regard, ANGPTL7 is reported to both decrease fibronectin expression and promote MMP1 expression, actions that would tend to reduce organized ECM deposition (8). When overexpressed in tumor cells, it promotes collagen and proteoglycan deposition but inhibits tumor xenograft progression and tumor angiogenesis (4). ANGPTL7, when used in combination with SCF, Thrombopoietin, IGF-II, and FGF acidic, enhances the expansion and engraftment of human and mouse hematopoietic stem cells (9).

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