

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                      |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human FAM20B in direct ELISAs.                                                                     |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>2A</sub> Clone # 1018569                                                         |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                                                 |
| <b>Immunogen</b>                                                                                                                                                                                        | Chinese hamster ovary cell line CHO-derived recombinant human FAM20B<br>Asn27-Leu409<br>Accession # O75063 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm                            |
| <b>Formulation</b>                                                                                                                                                                                      | 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.

**Immunocytochemistry** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

FAM20B is a member of the FAM20 protein family that has three members in mammals (FAM20A, FAM20B, FAM20C) (1). Human FAM20B shares 97% amino acid sequence identity with mouse and rat FAM20B. FAM20B localizes to the Golgi apparatus where it phosphorylates the xylose residue in the glycosaminoglycan (GAG)-protein linkage region of proteoglycans, which leads to enhanced GAG biosynthesis (2). Accordingly, chondroitin sulfate and heparan sulfate production is increased when FAM20B is over-expressed and reduced following FAM20B knockdown (2). FAM20B knockout mice display embryonic lethality at day E13.5, suggesting that FAM20B has an important role during development (3). Furthermore, in zebrafish, FAM20B mutations result in reduced cartilage matrix production and skeletal defects (4). The enzymatic activity of recombinant human FAM20B is measured using a phosphatase-coupled method (5).

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