# Human FAM20B Antibody

Monoclonal Mouse $IgG_{2A}$ Clone # 1018569

Catalog Number: MAB84272

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Human |
| **Specificity** | Detects human FAM20B in direct ELISAs. |
| **Source** | Monoclonal Mouse $IgG_{2A}$ Clone # 1018569 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | Chinese hamster ovary cell line CHO-derived recombinant human FAM20B<br>Asn27-Leu409<br>Accession # O75063 |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS. |

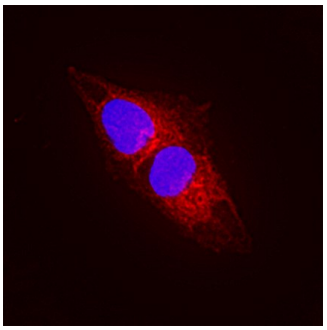
## APPLICATIONS

**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 |
|---|---|---|
| **Immunocytochemistry** | 8-25 µg/mL | See Below |

## DATA

**Immunocytochemistry**



**FAM20B in SH-SY5Y Human Cell Line.** FAM20B was detected in immersion fixed SH-SY5Y human neuroblastoma cell line using Mouse Anti-Human FAM20B Monoclonal Antibody (Catalog # MAB84272) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

## PREPARATION AND STORAGE

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|---|---|
| **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.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>• 12 months from date of receipt, -20 to -70 °C as supplied.<br>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>• 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

## 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).

**References:**


1. Nalbant, D. *et al.* (2005) BMC Genomics **6**:11.
2. Koike, T. *et al.* (2009) Biochem. J. **421**:157.
3. Vogel, P. *et al.* (2012) Vet. Pathol. **49**:998.
4. Eames, B.F. *et al.* (2011) PLoS Genet. **7**:e1002246.
5. Wu, Z.L. (2011) PLoS One **6**:e23172.




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