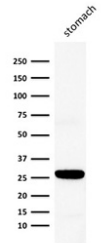
# Cx32 Antibody M12.13 / Connexin 32 [clone M12.13] (V3306)

| Catalog No. | Formulation | Size |
|---|---|---|
| V3306-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V3306-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V3306SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

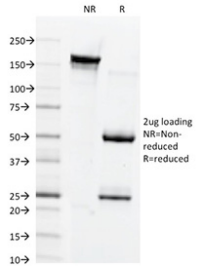
Citations (22)

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG |
| **Clone Name** | M12.13 |
| **Purity** | Protein G affinity chromatography |
| **UniProt** | P08034 |
| **Localization** | Cell surface, cytoplasmic |
| **Applications** | Immunofluorescence: 1-2ug/ml<br>Flow cytometry: 0.5-1ug/10^6 cells<br>Western blot: 0.5-1ug/ml |
| **Limitations** | This Cx32 Antibody M12.13 is available for research use only. |




Cx32 Antibody M12.13 Human Stomach WB. Western blot testing of human stomach tissue using Cx32 antibody (clone M12.13) detected a prominent band at approximately 32 kDa, consistent with the predicted molecular weight of Connexin 32. The observed band is consistent with expression of this gap junction protein in gastric tissue, where Connexin 32 contributes to direct intercellular communication and maintenance of epithelial homeostasis. This Connexin 32 Antibody, clone M12.13, is suitable for studies of gap junction biology, gastrointestinal physiology, and connexin-mediated cell-cell communication.




Cx32 Antibody M12.13 Purity SDS-PAGE. SDS-PAGE analysis of purified, BSA-free Cx32 Antibody (clone M12.13) under non-reducing (NR) and reducing (R) conditions confirmed the integrity and high purity of the antibody preparation. A 2 ug antibody sample was analyzed, revealing the expected intact immunoglobulin under non-reducing conditions and characteristic heavy and light chains following reduction. This quality control analysis demonstrates the purity of clone M12.13 prior to use in research applications targeting Connexin 32.

## Description

Cx32 Antibody M12.13 recognizes Connexin 32, also known as Gap Junction Beta 1 (GJB1), a transmembrane protein that forms gap junction channels enabling direct communication between adjacent cells. Six Connexin 32 subunits assemble into a connexon, or hemichannel, which docks with a connexon on a neighboring cell to create a functional gap junction. These channels permit the exchange of ions, metabolites, and second messengers, allowing neighboring cells to coordinate electrical, metabolic, and signaling activities that are essential for tissue homeostasis. Connexin 32 is highly expressed in the liver, peripheral nervous system, pancreas, kidney, and other epithelial tissues where gap junction communication is critical for normal physiology.

Within the peripheral nervous system, Connexin 32 is predominantly localized to myelinating Schwann cells, where it forms channels that facilitate radial diffusion of ions and small metabolites across compact myelin. This process supports axonal maintenance and efficient nerve conduction. Mutations in the GJB1 gene are the primary cause of X-linked Charcot-Marie-Tooth disease type 1, one of the most common inherited peripheral neuropathies. Disease-associated variants can impair Connexin 32 trafficking, channel assembly, or gap junction function, leading to progressive demyelination and neurological dysfunction. Consequently, Connexin 32 remains an important target in studies of inherited neuropathies, Schwann cell biology, and peripheral nerve regeneration.

Connexin 32 also serves as the principal gap junction protein in hepatocytes, where it coordinates liver metabolism, regeneration, and responses to toxic or inflammatory injury. Altered expression, localization, or phosphorylation of Connexin 32 has been associated with hepatocellular carcinoma, pancreatic disease, epithelial cancers, and inflammatory disorders, highlighting the importance of gap junction signaling in tissue homeostasis and disease progression. Research continues to explore the roles of Connexin 32 in cell proliferation, differentiation, oxidative stress responses, and intercellular signaling across multiple organ systems.

Clone M12.13 is a mouse monoclonal antibody developed for the detection of Connexin 32 in research applications. Its specificity for this gap junction protein makes it well suited for studies of connexin expression, gap junction assembly, liver physiology, peripheral nerve biology, and diseases involving disrupted intercellular communication. A Connexin 32 / Cx32 Antibody is a valuable research tool for investigating gap junction biology, cell-cell communication, and connexin-associated disease mechanisms.

For a broader overview of Connexin 32 biology, gap junction function, and intercellular communication, see our Connexin 32 Antibody / Cx32 Antibody page.

## Application Notes

Optimal dilution of the Cx32 Antibody M12.13 should be determined by the researcher.

## Immunogen

Rat junctional complexes were used as the immunogen for the Cx32 Antibody M12.13. The epitope is known to be located in the cytoplasmic loop (Ref 1).

## Storage

Store the Cx32 Antibody M12.13 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

## Alternate Names

Connexin 32 antibody, Cx32 antibody, GJB1 antibody, Gap Junction Beta 1 antibody, Gap Junction Protein Beta 1 antibody

## References (1)


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