

Anti-Oligodendrocyte-specific surface antigen [sHlgM22 (LYM22)] Standard Size Ab02987-15.0

This antibody does not have a J-chain and therefore presents as a hexamer, rather than a pentamer.

Isotype and Format: Human IgM, Lambda

Clone Number: sHlgM22 (LYM22)

Alternative Name(s) of Target: oligodendrocyte

UniProt Accession Number of Target Protein:

Published Application(s): ICC, therapeutic, IF, IHC

Published Species Reactivity: Human, Mouse, Rat

Immunogen: The original antibody was isolated from the sera obtained from 102 patients with a wide variety of conditions including Waldenstrom's macroglobulinemia, multiple myeloma, lymphoma, and monoclonal gammopathy.

Specificity: This antibody recognizes and binds an epitope on the cell surface of human oligodendrocytes and central white matter of the cerebellum. This antibody also cross reacts with antigens present on mouse and rat oligodendrocytes.

Application Notes: This antibody is directed against the cell surface antigen of oligodendrocyte and induces calcium signals in cultured glial cells promotes and promotes significant remyelination in a virus mediated mouse model of multiple sclerosis (MS). A single 0.5 mg peripheral dose of either of two human IgMs (sHlgM22 and sHlgM46) promoted significant remyelination in chronically Theiler's murine encephalomyelitis virus (TMEV) infected mice (PMID: 10841576). This antibody was also found to accelerate the rate of remyelination of axons in a lysolecithin-induced demyelination mouse model (PMID: 11857682). This antibody was used in the immunohistochemical staining of mature mouse cerebellar slices and was found to bind the white matter also react with Purkinje cells in the granular layer (PMID: 12154009). A recombinant IgM version of this antibody (rHlgM22) was generated and tested for its ability to induce remyelination in the Theiler's virus mouse model of chronic-progressive demyelinating disease (PMID: 12154009). This antibody can be used for the immunofluorescent staining of oligodendrocytes, as well as to central white matter of the cerebellum (PMID: 14655764). This antibody was also used in the immunohistochemical and immunocytochemical analysis of active MS lesions from 83 biopsies and autopsies of MS patients and was also used in the identification of four different pathologic subtypes of active MS lesions (PMID: 21961063)

Antibody First Published in: Warrington et al. Human monoclonal antibodies reactive to oligodendrocytes promote remyelination in a model of multiple sclerosis. Proc Natl Acad Sci U S A. 2000 Jun

6;97(12):6820-5. [PMID:10841576](#)

Note on publication: Describes the generation of two antibodies that promote remyelination in a virus mediated mouse model of multiple sclerosis.

Product Form

Size: 50 µg Purified antibody.

Purification: Affinity Purified using a recombinant lectin column

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.