

## Anti-MOG [8.18-C5] Bulk Size Ab03388-10.0-BT

This chimeric human antibody was made using the variable domain sequences of the original Mouse IgG1 format for improved compatibility with existing reagents assays and techniques.

**Isotype and Format:** Human IgG1, Kappa

**Clone Number:** 8.18-C5

**Alternative Name(s) of Target:** Myelin-oligodendrocyte glycoprotein; 8.18C5; 8-18C5

**UniProt Accession Number of Target Protein:** Q63345

**Published Application(s):** crystallization, in vivo, WB, ELISA, FC, IF, IHC

**Published Species Reactivity:** Cow, Guinea Pig, Monkey, Rat, Human, Mouse

**Immunogen:** The original antibody was generated immunizing mice against Thy-1-depleted rat cerebellar glycoproteins.

**Specificity:** The antibody binds specifically to MOG, recognising a conformational epitope. MOG is a transmembrane glycoprotein expressed on the surface of oligodendrocytes in the central nervous system, that plays an important role in maintaining the structure of the myelin sheath. Monoclonal antibodies that target MOG are involved in the pathogenesis of the demyelinating disorder multiple sclerosis (MS). Animals injected with anti-MOG antibodies have been shown to display symptoms of human MS, and can thereby be used as models to study the development of the disease. The epitope interacting with the antibody is expressed in rat, mouse, guinea pig, cow, monkey, and humans.

**Application Notes:** This antibody was detected in white matter tracts of the central nervous system by immunohistochemistry. The antibody detected MOG by western blot analysis (Linnington et al., 1984; PMID: 6207204). The specificity of the original format of the antibody and Fab fragment was confirmed by ELISA analysis (Litzenburger et al., 1998; PMID: 9653093 and Menge et al., 2011; PMID: 22093619). This antibody was used for detection of MOG expressed on B cells by flow cytometry (Na et al., 2021; PMID: 34149706). MOG from HeLa cells were immunoprecipitated with the antibody. Immunofluorescence was performed on HeLa cells using this antibody (Boyle et al., 2007; PMID: 17573820). The antibody triggered in vivo expansion of CD4<sup>+</sup> T cells in spleen, inguinal, and cervical lymph nodes (Kinzel et al. 2016; PMID: 27022743). The crystal structure of the Fab version of this antibody was determined in complex with MOG Ig<sup>d</sup> (Breithaupt et al., 2003; PMID: 12874380).

**Antibody First Published in:** Linnington et al. A novel myelin-associated glycoprotein defined by a mouse monoclonal antibody. J Neuroimmunol. Sep-Oct 1984;6(6):387-96. [PMID:6207204](#)

**Note on publication:** The original paper describes the generation and characterization of the antibody.

## Product Form

**Size:** 1 mg Purified antibody in bulk size.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. 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.