

Anti-Sag1 [4F11E12] Standard Size Ab00763-44.0

This chimeric cat 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: Cat IgM, Kappa

Clone Number: 4F11E12

Alternative Name(s) of Target: P30

UniProt Accession Number of Target Protein: C7E5U4

Published Application(s): crystallization

Published Species Reactivity: Toxoplasma gondii

Immunogen: 4F11E12 was generated by intraperitoneal infection of mice with cysts from the 76 K T. gondii strain and was selected for its ability to inhibit efficiently the recognition of SAG1 by sera from infected patients. The 4F11E12 Fab fragment was created by digestion with papain

Specificity: 4F11E12 recognises a highly conserved conformational epitope on the surface of the D1 domain in both native and recombinant SAG1, located within the N-terminal domain; the binding site does not overlap with the proposed ligand-binding pocket or homodimerization site. The epitope is an immunodominant area and includes residues from 2 long loops located at one extremity. SAG1 is a GPI-anchored cell surface protein predicted to act as an adhesin during host-cell attachment through its binding to proteoglycans. SAG1 recognizes ligands such as glucosamide moieties, which are expressed in a broad range of host cell types. T. gondii is a protozoan parasite capable of causing chronic infections resulting in congenital disease and has the ability to evade natural host defences.

Application Notes: F411E12 can be co-crystallized with SAG1, which enables the mode of binding to be elucidated.

Antibody First Published in: Graille et al. Crystal structure of the complex between the monomeric form of Toxoplasma gondii surface antigen 1 (SAG1) and a monoclonal antibody that mimics the human immune response. J Mol Biol. 2005 Nov 25;354(2):447-58. Epub 2005 Sep 30. [PMID:16242717](#)

Note on publication: Describes the generation of F411E12 Fab and its co-crystallization with SAG1. The epitope binding site was determined and it was found that neither homodimerization or prevents access to the ligand binding site (which are necessary to neutralize parasite entry into host cells).

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.