

Anti-Porphyrin [13G10] Standard Size Ab01004-2.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This reformatted mouse 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: Mouse IgG2a, [Fc Silent™](#), Lambda

Clone Number: 13G10

Alternative Name(s) of Target: Fe(ToCPP); Iron(III)-meso-alpha,alpha,alpha,beta-tetrakis-orthocarboxyphenylporphyrin

UniProt Accession Number of Target Protein:

Published Application(s): crystallisation, ELISA

Published Species Reactivity: Species independent

Immunogen: BALB/c mice were immunised by injection of iron(III)-meso-alpha,alpha,alpha,beta-tetrakis-orthocarboxyphenylporphyrin (Fe(ToCPP)) conjugated to KLH. Splenocytes were obtained from immunised mice and fused with the PA1 myeloma cell line to generate a hybridoma.

Specificity: 13G10 was shown to bind Fe(ToCPP) using competitive ELISA with an affinity of 20 nM. 13G10 showed that same affinity for non-metallated Fe(ToCPP). The antibody did not bind meso-tetraphenylporphyrin, suggesting that the carboxylate groups are critical for recognition.

Application Notes: 13G10 has been used in ELISAs to show binding to various porphyrin molecules, with different metallation states and functional groups (Quilez et al, 1996). The antibody was also shown to exhibit catalytic activity when incubated with Fe(ToCPP) and ABTS and hydrogen peroxide, however was later shown to also use a wider range of hydroperoxides in catalysis (de Lauzon et al, 1999).

Antibody First Published in: Quilez et al. Artificial peroxidase-like hemoproteins based on antibodies constructed from a specifically designed ortho-carboxy substituted tetraarylporphyrin hapten and exhibiting a high affinity for iron-porphyrins. FEBS Lett. 1996 Oct 14;395(1):73-6. [PMID:8849692](#)

Note on publication: Describes the generation of 3 mAbs against a modified porphyrin derivative (Fe(ToCPP)) and characterisation of their binding to porphyrin molecules, as well as catalytic peroxidase activity.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

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.