

Anti-IgG1 Fc [TP1107] Standard Size Ab01436-23.9

This chimeric rabbit antibody was made using a variable domain sequence of the original VHH format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Rabbit IgG-Fc fusion, His-Tagged

Clone Number: TP1107

Alternative Name(s) of Target: immunoglobulin G1 fragment crystallizable region; immunoglobulin G1 Fc region; immunoglobulin G1

UniProt Accession Number of Target Protein:

Published Application(s): dot blot assay, ICC, WB, IF

Published Species Reactivity: Human (weak), Rat, Mouse

Immunogen: This antibody was raised by immunising alpacas with 1.0 mg polyclonal mouse IgG. Subsequently, the generation of nanobody immune libraries and the selection of antigen-specific nanobodies by phage display from these libraries were performed.

Specificity: This antibody recognises Fc fragment of the IgG1.

Application Notes: Anti-IgG nanobodies can often perform more efficiently than polyclonal secondary antibodies in various experimental assays. For instance, this nanobody conjugated with a maleimide-activated HRP was used to detect mouse IgG1 via ECL Western blot and it considerably outperformed a polyclonal secondary antibody-HRP conjugate (Pleiner et al., 2018). Similarly, this nanobody conjugated with the infrared fluorophore IRDye 800 performed equally or better than a polyclonal anti-mouse IgG secondary antibody in Western blotting on HeLa cell lysate (Pleiner et al., 2018). TP1107 nanobody can also be used as an efficient high-affinity reagent for immunofluorescence. It was utilised in conjugation with two to three fluorophores in detection of mouse monoclonal IgG1 for the indirect immunostaining of HeLa cells where it performed exceptionally well as for a non-polyclonal antibody reaching similar signal strength to polyclonal agents when it was combined with another anti-IgG1 nanobody (Pleiner et al., 2018). Monovalent nanobodies can be also effectively used in a single step immunostaining procedure because they do not create large, cross-linked complexes with primary antibodies. TP1107 was used as a secondary reagent; it was first incubated with a primary antibody and then a one-step immunostaining was performed (without the usual separate incubation with a primary and secondary antibody) (Pleiner et al., 2018).

Antibody First Published in: Pleiner et al. A toolbox of anti-mouse and anti-rabbit IgG secondary nanobodies. J Cell Biol. 2018 Mar 5;217(3):1143-1154. doi: 10.1083/jcb.201709115. Epub 2017 Dec 20.

[PMID:29263082](#)

Note on publication: The article describes the generation and characterisation of this nanobody.

Product Form

Size: 200 µg Purified antibody.

Purification: Purified by Immobilized Metal Affinity Chromatography

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.