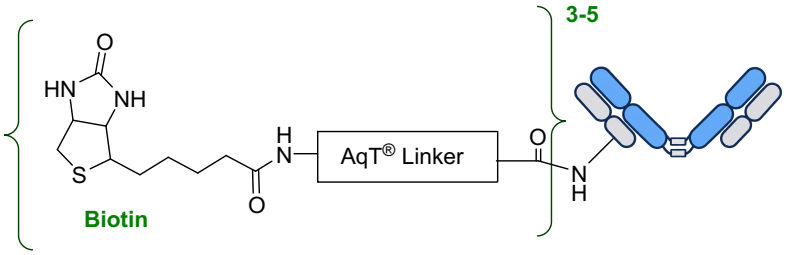
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AqT® Biotin F(ab')2 Fragment Goat Anti-Human IgG, Fcγ Fragment Specific

100 µg of conjugate per tube

Product Number: **CM86178**



Product Description

AqT® Biotin F(ab')$_2$ Goat Anti-Human IgG is a biotinylated polyclonal secondary antibody fragment that specifically recognizes the Fcγ region of human IgG heavy chains. The F(ab')2 fragment is prepared from a polyclonal goat secondary antibody and is not cross-adsorbed; therefore, it may cross-react with immunoglobulins from other species.

Unlike whole IgG antibodies, F(ab')$_2$ fragments lack the Fc region, reducing Fc receptor-mediated nonspecific binding. This is particularly beneficial in tissues containing Fc receptor-expressing cells, such as macrophages, monocytes, and dendritic cells, where whole IgG secondary antibodies may bind nonspecifically and generate background signals. Biotinylated F(ab')$_2$ fragments can help minimize this background, improving signal-to-noise ratios in immunohistochemistry, immunofluorescence, and flow cytometry applications. The smaller molecular size of F(ab')$_2$ fragments may also improve diffusion and penetration into tissue sections and dense biological samples. Additionally, the absence of the Fc region minimizes interactions with Protein A and Protein G, making F(ab')$_2$ fragments advantageous for certain immunoassays and affinity-based detection applications.

This product is biotinylated through surface amine groups on the F(ab')$_2$ fragment using CellMosaic's proprietary super-hydrophilic AqT® linker technology. With an average of 3–5 biotin molecules per F(ab')$_2$ fragment, AqT® biotinylation enables efficient streptavidin-mediated detection and signal amplification, supporting sensitive and reproducible detection across a variety of immunoassay applications.

For more information about AqT® Biotinylated Secondary Antibodies, visit:
https://cellmosaic.com/biotinylated-secondary-antibodies/

The product is sold as 1 tube of 100 µg of conjugate. For bulk quantities and custom packaging requirements, please contact us for pricing and availability.

Product Information

- **Chemical Name**: AqT® Biotin F(ab')$_2$ Fragment Goat Anti-Human IgG, Fcγ Fragment Specific
- **Molecular Weight:** Approximately 112 kDa
- **Physical Appearance:** Clear solution in 1xPBS buffer with stabilizers
- **Storage Temperature:** -20 °C or below
- **Purity:** ≥85% of F(ab')2 conjugates by SEC-HPLC (refer COA of each lot for actual value)
- **Average Biotin Loading:** 3–5 biotin molecules per antibody (refer COA of each lot for actual value)

Antibody Information

- **Target:** Human IgG
- **Immunogen:** Human IgG Fcγ Fragment

- **Specificity:** Human IgG Fcγ
- **Species Reactivity:** Human
- **Cross-Adsorption**: N/A
- **Host Species:** Goat
- **Class/Isotype:** $F(ab')_2$ Fragment Goat IgG (Pepsin digestion to remove most of the Fc region)
- **Antibody Type:** Polyclonal
- **Country of Manufacture:** USA

Key Features

- **Reduced nonspecific binding:** $F(ab')_2$ fragments lack the Fc region, minimizing Fc receptor-mediated nonspecific binding and improving signal-to-noise ratios
- Average of 3–5 biotin molecules per antibody
- Protein content determined by UV/HPLC analysis
- Biotin incorporation measured using a biotin assay
- **Advanced AqT® linker technology**: CellMosaic's proprietary, super-hydrophilic, water-soluble, and charge-neutral AqT® linker is designed to support aqueous solubility and minimize aggregation

Applications

- Enzyme-linked immunosorbent assays (ELISA)
- Flow Cytometry, Immunohistochemistry (IHC)
- Immunocytochemistry (ICC)
- Western Blotting
- Immunoprecipitation (IP) and Pull-Down Assays
- Biosensor and Surface Immobilization, including SPR and BLI
- Cell Isolation and Magnetic Separation

Storage/Stability

Store the conjugate solution at −20 °C or below. Avoid repeated freeze–thaw cycles.

Important Notes

For Research Use Only. Not for Use in Human or Diagnostic Procedures.

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