

Anti-IgG [RF61] Bulk Size Ab04107-23.0-BT

Isotype and Format: Rabbit IgG, Lambda

Clone Number: RF61

Alternative Name(s) of Target: IgG1; IgG2; IgG3; IgG4; Immunoglobulin G; Immunoglobulin gamma-1; Immunoglobulin G subclass 1; Immunoglobulin gamma-2; Immunoglobulin G subclass 2; Immunoglobulin gamma-3; Immunoglobulin G subclass 3; Immunoglobulin gamma-4; Immunoglobulin G subclass 4; 274.RA.F4; RF mAb 61; mAb 61

UniProt Accession Number of Target Protein: P0DOX5

Published Application(s): HA, ELISA

Published Species Reactivity: Human

Immunogen: The original antibody was produced by an Epstein Barr virus (EBV)-transformed B-cell line prepared from peripheral CD5⁺ blood lymphocytes of a Gm(a-), (x-), (b+), (g-), (f+) patient with classical rheumatoid arthritis (RA).

Specificity: This antibody is specific for the C-terminal (Cγ3) end of the Fc region of IgG1, -2, and -3, with ~10-fold lower affinity for IgG4. This antibody's binding to IgG Fc is non-inhibitable by *S. aureus* protein A (SpA), which binds IgG Fc at the Cγ2-Cγ3 interface; this antibody's epitope is almost as far as physically possible from the antigen-combining site of IgG and is also remote from the functional sites responsible for FcγR or C1q binding (in Cγ2) and from the N-linked carbohydrate, also in Cγ2.

Application Notes: The binding activity of this antibody's original format (human IgM) to IgG Fc fragments was measured by ELISA, and a dissociation constant (K_d) of 6.0×10^{-7} M was calculated (Burastero et al., 1988; PMID: 3264319). This antibody exhibited strong reactivity with both monoclonal and polyclonal human anti-Rh IgG antibodies bearing the Gm(a) or Gm(g) specificity in hemagglutination assays (HAs), displaying a higher affinity for Gm(g). Additionally, it demonstrated efficient binding to heat-altered autologous Gm(a-), (g-) IgG and exhibited heteroclitic specificity at the clonal level in an autologous system (Williams Jr et al., 1992; PMID: 1380541). The binding of this antibody's original format to human IgG subclasses as measured by ELISA demonstrated that its binding specificity is IgG1~IgG2~IgG3>IgG4 (Duquerroy et al., 2007; PMID: 17395205).

Antibody First Published in: Burastero et al. Monoreactive high affinity and polyreactive low affinity rheumatoid factors are produced by CD5⁺ B cells from patients with rheumatoid arthritis J Exp Med. 1988 Dec 1;168(6):1979-92. doi: 10.1084/jem.168.6.1979 PMID:3264319

Note on publication: The original publication explores the production of monoreactive high affinity and polyreactive low affinity rheumatoid factors by CD5⁺ B cells from patients with rheumatoid arthritis, and characterizes the binding activity and disassociation constant of several of the produced mAbs.

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.