

Anti-CD40 [2E4E4] Bulk Size Ab01651-23.0-BT

This chimeric rabbit 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: Rabbit IgG, Kappa

Clone Number: 2E4E4

Alternative Name(s) of Target: CD40L receptor; CDw40; Bp50; B-cell surface antigen CD40; Tumor necrosis factor receptor superfamily member 5

UniProt Accession Number of Target Protein:

Published Application(s): agonist, ICC, immune activation, FC, IHC

Published Species Reactivity: Cow, Goat, Pig, Sheep

Immunogen: This antibody was raised by immunising BALB/c mice with recombinant extracellular domain of swine CD40 in RIBI adjuvant.

Specificity: This antibody recognises extracellular domain of swine, bovine, caprine, and ovine CD40. CD40, an integral membrane glycoprotein of the TNF-receptor superfamily, is expressed mainly on professional antigen-presenting cells (APCs), including B-cells, macrophages, and dendritic cells. However, high levels of CD40 can also be detected on a wide range of tumor cells of the bladder, breast, and ovary.

Application Notes: 2E4E4 antibody is recommended as an effective adjuvant in the development of vaccines as it was demonstrated to have strong agonistic activity against CD40 evoking 25-fold or greater proliferation of peripheral blood mononuclear cells (PBMCs) from livestock species relative to cells incubated with an isotype control (Martin et al., 2017; PMID: 28107431). What is more, it led to a strong nitric oxide release from bovine macrophages, enhanced expression of MHC-II by PBMCs and induced significant expression of IL-1 α , IL6, IL-8, and TNF- α by PBMCs (Martin et al., 2017; PMID: 28107431). Furthermore, this antibody was successfully utilised in the detection of bovine, caprine, ovine and swine CD40 via flow cytometry and immunohistochemistry in the spleen tissue samples (Martin et al., 2017; PMID: 28107431).

Antibody First Published in: Martin et al. Characterization of a Broadly Reactive Anti-CD40 Agonistic Monoclonal Antibody for Potential Use as an Adjuvant. PLoS One. 2017 Jan 20;12(1):e0170504. doi: 10.1371/journal.pone.0170504. eCollection 2017. [PMID:28107431](#)

Note on publication: This article describes the generation and characterisation of 2E4E4 antibody.

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.