

Anti-DR4 [mAY4] Standard Size Ab00953-10.0

This full-length, chimeric human antibody was made using the variable domain sequences of the original Chicken scFv format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Human IgG1, Lambda

Clone Number: mAY4

Alternative Name(s) of Target: CD261; Death receptor 4; Tumor necrosis factor receptor superfamily member 10A; TNF-related apoptosis-inducing ligand receptor 1; TRAIL receptor 1; TRAILR1; TRAIL-R1; TRAILR 1; TNFRSF10A; APO2

UniProt Accession Number of Target Protein: O00220

Published Application(s): SPR, WB, ELISA

Published Species Reactivity: Human

Immunogen: mAb mAY4 was generated by immunising BALB/c mice with the ECD (residues 1-215) of human DR4. Splenocytes were obtained from immunised mice and fused with murine Sp2/O myeloma cells. mAY4 was cloned by RT-PCR and reformatted as an scFv.

Specificity: mAY4 was shown to bind DR4 by ELISA (Sung et al, 2009). These experiments also showed that mAY4 did not react with other homologous death receptors, including DR5, decoy receptor (DcR) 1, DcR2, FAS receptor, and mTR (a mouse ortholog of human DR4 and DR5). SPR showed an affinity of 7.1 nM for interaction with DR4. mAY4 bound to a different epitope on DR4 than the physiological ligand TRAIL. DR4 is a pro-apoptotic receptor expressed on all cells. It represents a promising target for anti-cancer therapeutic agents.

Application Notes: mAY4 was shown to bind DR4, but not other related homologs, using ELISAs and SPR (Sung et al, 2009). The mAb and scFv-reformatted version were also used in cell viability assays for assessment of tumouricidal activity. More recently, the mAY4 CDRs were humanised and expressed as an scFv-reformatted antibody fragment (Lee et al, 2010), although the humanised version had a 10-fold lower affinity for DR4.

Antibody First Published in: Sung et al. A novel agonistic antibody to human death receptor 4 induces apoptotic cell death in various tumor cells without cytotoxicity in hepatocytes. Mol Cancer Ther. 2009 Aug;8(8):2276-85. [PMID:19638452](#)

Note on publication: Describes the generation of mAY4, a murine antibody against human DR4. The mAb, and a scFv-reformatted version, were shown to promote DR4-mediated apoptotic activity and prevent

tumour growth of human NSCLC tumours established in mice.

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.