

## Anti-DR5 [YSd1] Standard Size Ab00915-10.0

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

**Isotype and Format:** Human IgG1, Kappa

**Clone Number:** YSd1

**Alternative Name(s) of Target:** TRAILR2; Death receptor 5; DR-5; TRAIL receptor 2; Tumour necrosis factor receptor superfamily member 10B; TNFRSF10B

**UniProt Accession Number of Target Protein:** O14763

**Published Application(s):** NTRL

**Published Species Reactivity:** Human

**Immunogen:** Fab fragments were generated by constructing phage-display libraries in which the CDRs of a humanised Fab framework derived from the murine Ab 4D5 were randomised (see Eigenbrot et al, 1993). The 1st and 2nd CDRs of the VH domain were replaced by randomised sequences consisting only of Tyr and Ser residues, whilst the 3rd VH CDR was substituted with random loops of variable lengths comprising all naturally occurring amino acids. Specific Fabs were isolated using ELISA screening.

**Specificity:** YSd1 was selected during phage display on the basis of its binding to the extracellular domain of DR5. It binds to the N-terminal portion of the molecule, binding to the smaller of two binding sites for the natural DR5 ligand Apo2L/TRAIL in the same fashion as the natural ligand.

**Application Notes:** YSd1 bound DR5 with high affinity, shown using competitive phage ELISA as well as surface plasmon resonance (with a K<sub>d</sub> of 34 nM). By binding to interfacial regions of DR5 which are sites of physiological ligand interaction, it is likely that YSd1 has the capacity to neutralise DR5 activity by inhibition of downstream signalling.

**Antibody First Published in:** Fellouse et al. Molecular recognition by a binary code. J Mol Biol. 2005 May 20;348(5):1153-62 [PMID:15854651](#)

**Note on publication:** Describes the generation of antibodies specific for human VEGF and human DR5, using the VH and VL framework regions of the murine anti-human HER2 Ab 4D5. The CDRs of the parental Ab were randomised using only Ser and Tyr residues, highlighting the potential to generate binding specificity from a limited chemical repertoire. The anti-DR5 Ab, YSd1, was crystallised with the N-terminal DR5 extracellular domain.

## 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.