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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-DOTA (metal-bound) [2D12.5] Bulk Size Ab03322-1.1-BT

Isotype and Format: Mouse IgG1, Lambda

Clone Number: 2D12.5

Alternative Name(s) of Target: Tetraxetan; dodecane tetra acetic acid; CHEBI:61028; Yttrium(III) labeled DOTA; Y-DOTA; Yttrium-1 4 7 10-tetraazacyclododecanetetracetic acid; metal-DOTA

UniProt Accession Number of Target Protein:

Published Application(s): radioimmunotherapy

Published Species Reactivity: Species independent

Immunogen: The original antibody was generated by immunizing BALB/c mice with KLH-21T-BAD-Y(III).

Specificity: This antibody binds DOTA (Tetraxetan) and also shows binding affinity for This antibody binds metal bound DOTA (Tetraxetan) and also shows binding affinity for Yttrium(III) labeled DOTA, (S) nitro benzyl-DOTA chelates and Janus-DOTA (a bivalent form of DOTA). DOTA is a chelating agent which can be labelled with radioactive yttrium ion and even conjugated with monoclonal antibodies for radioimmunotherapy.

Application Notes: The original mouse IgG1 antibody binds DOTA chelates of all the rare earths with approximately $K_d \approx 10^{-8}$ M, making it useful for the capture of probe molecules with a variety of properties (PMID: 15546206). The original IgG1 version of this antibody was used in the pretargeting for radioimmunotherapy in BALB/c mice with KHJ tumors (PMID: 7954426). In vivo clearance studies have demonstrated that 74-96% of 2D12.5 bound to metal chelates is present 24 hours after administration of the bound complex (US7528235). An engineered version of this antibody with a single cysteine residue at position 54, 55 or 56 of the heavy chain, a site proximal to the protein's binding site, enables formation of weakly electrophilic metal complexes of (S)-2-(4-acrylamidobenzyl)-DOTA (AABD) that may bind and form permanent linkages (PMID: 15546206; 15546207). The heavy chain G54C mutant had a small set of electrophilic ligands, differences in reactivity indicated that the substituents near the electrophilic atom can be important determinants of permanent binding (PMID: 15546207).

Antibody First Published in: Goodwin et al. Pharmacokinetics of pretargeted monoclonal antibody 2D12.5 and 88Y-Janus-2-(p-nitro benzyl)-1,4,7,10-tetraazacyclododecanetetracetic acid (DOTA) in BALB/c mice with KHJ mouse adenocarcinoma: a model for 90Y radioimmunotherapy. Cancer Res. 1994 Nov 15;54(22):5937-46. [PMID:7954426](#)

Note on publication: Describes the pretargeting and pharmacokinetics of antibody 2D12.5 and DOTA for radioimmunotherapy in mouse models.

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.