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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-Hairpin DNA [DNA-1] Standard Size Ab00415-1.29

This is a Fab fragment with a his-tag.

Isotype and Format: Mouse Fab fragment, His-Tagged, Kappa

Clone Number: DNA-1

Alternative Name(s) of Target: dT5; Oligo(dT); Oligo (dT); poly(dT); poly (dT)

UniProt Accession Number of Target Protein:

Published Application(s): crystallography, IP, ITC, ELISA

Published Species Reactivity: Species independent

Immunogen: The original format of this antibody was isolated from a phage display derived from MRL/lpr mice (autoimmune mice). The library was panned against single-stranded calf thymus DNA.

Specificity: This antibody is specific for dT5, with high specificity to sequences greater than 5 nucleotides. It primarily recognizes the thymine DNA base, but it also binds to oligo(dT)15 nucleotides or greater and oligo(dT) of length three to five nucleotides. The antibody also recognizes the abbreviated hairpin sequence LIG5-14.

Application Notes: The original format of this antibody (Fab) was generated and characterized. It was shown to bind DNA in an IP assay. and its binding affinity was determined to be $(4.4 \pm 2.4) \times 10^{-8}$ M (Calcutt et al., 1993; PMID: 7506692). Fluorescence titration of the antibody with dT5 was performed, and a K_d of ~27 µM was measured (Komissarov et al., 1996; PMID: 8647821). The crystal structure of the Fab fragment in complex with dT5 was determined (Tanner et al., 2001; PMID: 11733999). Isothermal titration calorimetry experiments were used to measure the apparent affinity of the antibody for dT5. The apparent association constant was $K_A = 6.0 \times 10^4$ M⁻¹. Furthermore, the binding of dT5 to the antibody was exothermic, with an apparent ΔH_{cal} under solution conditions of -16.8 kcal/mol (Schuermann et al., 2004; PMID: 15340914). The crystal structure of the Fab version of this antibody was characterized in complex with a DNA ligand corresponding to nucleotides 5-14 of LIG1-17 (LIG5-14) (Ou et al., 2007; PMID: 18028946).

Antibody First Published in: Calcutt et al. Isolation and characterization of nucleic acid-binding antibody fragments from autoimmune mice-derived bacteriophage display libraries Gene. 1993 Dec 27;137(1):77-83. PMID:7506692

Note on publication: The original publication explores the isolation and characterization of nucleic acid-binding antibody fragments from autoimmune mice-derived bacteriophage display libraries.

Product Form

Size: 100 µg Purified antibody.

Purification: Purified by Immobilized Metal Affinity Chromatography

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.