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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-Z-DNA [Z22] Bulk Size Ab00783-23.0-BT

This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse IgG2b format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Rabbit IgG, Kappa
Clone Number: Z22
Alternative Name(s) of Target: Z DNA; ZDNA
UniProt Accession Number of Target Protein:
Published Application(s): gel retardation assay, SPR, ELISA, IF
Published Species Reactivity:
Immunogen: Z22 was prepared by immunizing C57BL/6 mice with brominated poly(dG-dC).poly(dG-dC) complexed with methylated bovine serum albumin (BSA), and was selected for by ELISA. Brominated poly(dG-dC).poly(dG-dC) forms a stable Z-DNA helix under physiological salt conditions.
Specificity: Z22 binds recognizes Z-DNA at the phosphodiester backbone of various base sequence including (dG-dC)n.(dG-dC)n, (dTdG)n.(dC-dA)n, (dG-dme5C)n.(dG-dme5C)n and (dG-dbr5C)n.(dG-dbr5C)n (i.e. binds to Z-DNA irrespective of sequence). Z22 does not bind to B-DNA or ssDNA (single-stranded DNA). DNA-8-MOP aducts can also be recognized by Z22. Z-DNA is a left-handed double helical structure in which the major and minor grooves show little difference in width and there is a repeating structure every 2 base pairs. Z-DNA formation is not generally favourable but can be promoted by an alternating puring-pyrimidine sequence, negative DNA supercoiling or high salt concentrations. Its biological relevence is yet to be determined, however the potential to form Z-DNA correlates with regions of active transcription. Both humans and mice presenting with systemic lupus erythematosus sera contain autoantibodies against Z-DNA.
Application Notes: The binding affinity of Z22 Fab to Z-DNA by SPR was measured to have an apparent KD of ~160 nM and could be competed out by soluble brominated d(G-C)15 but not unmodified d(G-C)15 (B-DNA). Z22 scFv binds to the target with a similar affinity to Z22 Fab. Competitive ELISA was used to determine binding specificity. Gel retardation assays were also used to show Z22 binding to DNA-8-MOP adducts. Biotinylated Z22 was used to determine the distribution of Z-DNA in permeabilized, microbead-encapsulated nuclei after adding radioactive streptavidin, and compared to encapsulated permeabilized nuclei stained with DAPI (Wittig et al, 1989).
Antibody First Published in: Möller et al. Monoclonal Antibodies Recognize Different Parts of Z-DNA. J Biol Chem. 1982 Oct 25;257(20):12081-5.

PMID:7118931

Note on publication: Describes the production of monoclonal antibodies which recognize Z-DNA. Binding specificity and affinity were determined.

Product Form

Size: 1 mg Purified antibody in bulk size.
Purification: Protein A affinity purified
Supplied In: PBS only.
Storage Recommendation: Store at 4^{o}C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommed this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20^{o}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.