



# SZABO SCANDIC

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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

### SZABO-SCANDIC HandelsgmbH

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## Anti-Z-DNA [Z22] Standard Size Ab00783-3.0

**Isotype and Format:** Mouse IgG2b, 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)<sub>n</sub>.(dG-dC)<sub>n</sub>, (dTdG)<sub>n</sub>.(dC-dA)<sub>n</sub>, (dG-dme5C)<sub>n</sub>.(dG-dme5C)<sub>n</sub> and (dG-dbr5C)<sub>n</sub>.(dG-dbr5C)<sub>n</sub> (i.e. binds to Z-DNA irrespective of sequence). Z22 does not bind to B-DNA or ssDNA (single-stranded DNA). DNA-8-MOP adducts 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 relevance 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)<sub>15</sub> but not unmodified d(G-C)<sub>15</sub> (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:** 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.