

## dsDNA (plasmid)

### Antigen Specification

**Product Number:** 12300

**Description:**

Double-stranded DNA (dsDNA).  
Antigen for in vitro research and  
manufacturing use only.

**Immunological function:**

Binds IgG-type human auto-antibodies.

**Origin:**

Bacterial plasmid molecule (Size 3.400  
base pairs). Propagated in and purified  
from *E. coli*.

**Biochemical tests:**

Photometric determination of  
concentration and purity (OD ratio at 260  
nm and 280 nm); agarose gel  
electrophoresis for determination of size,  
content of closed-circular form (> 95%)  
and absence of contaminating RNA and  
genomic DNA impurities.

**Calculated molecular weight:**

2.24 Mega-Dalton

**Immunological tests/Functionality:**

Standard ELISA test (checkerboard  
analysis of positive/negative samples,  
including the "First International Standard  
Preparation for dsDNA autoantibodies"  
(WHO code: Wo/80). Immunodot analyses  
with positive/negative samples.

**Recommended buffer/storage and  
handling conditions:**

Recommendations for storage buffer:  
neutral to slightly alkaline pH and  
presence of 1 mM EDTA.

Storage conditions: - 20°C is possible for  
mid-term storage; however, -70°C or  
below is recommended.

Repeated freeze/thaw cycles should be  
avoided.

**Coating concentration:**

1.0-2.0 µg/mL (depending on the type of  
ELISA plate, co-coating reagents and  
coating buffer, see also remark below).  
Suitable for biotinylation with DNA-  
biotinylation reagents.

**CAUTION:** This dsDNA antigen is highly  
purified and will behave differently from  
other DNA antigens (e.g. genomic DNA),  
which are often more readily immobilized  
onto plastic surfaces due to residual (and  
antigenic!) protein contaminants. Coating  
of this dsDNA antigen to plastic surfaces is  
satisfactory when appropriate counterions  
(polycations, etc.) are provided in the  
coating buffer. If required for assay  
development, DIARECT can be contacted  
for information on suitable counterions.

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