ODN 1826 (TLRGRADE®) (synthetic)

TLR9 ligand

CpG oligodeoxynucleotide (Type B) with phosphorothioate backbone. Specific ligand for mouse TLR9 (Toll-like receptor 9).

Citations: 7 View Online »

Ordering Information Order Online »

ALX-746-002-C100	100µg

Manuals, SDS & CofA View Online »

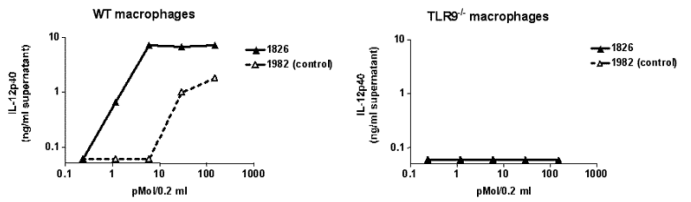


Figure 1: TLR9-dependent activation of mouse macrophages by ODN 1826 (TLRGRADE®) (synthetic) (Prod. No. ALX-746-002). **Method:** Culture of 5×10^5 cells per 200µl well was performed in serum-free conditions after addition of ODNs at the indicated concentrations. Cell activation was measured by IL12-p40 induction. Only CpG ODN 1826 (Prod. No. ALX-746-002), but not the corresponding GpC control ODN 1982 (Prod. No. ALX-746-201) activates wild type mouse macrophages. Activation is absolutely dependent on the presence of TLR9 as addressed with cells derived from TLR9-deficient mice. Note the logarithmic scale for the x and y-axis and the high activity of the active ODNs: max. stimulation is already achieved with 0.010-0.100nmol per 200µl well (10-100nM, corresponding to ~0.5-5ug/ml).

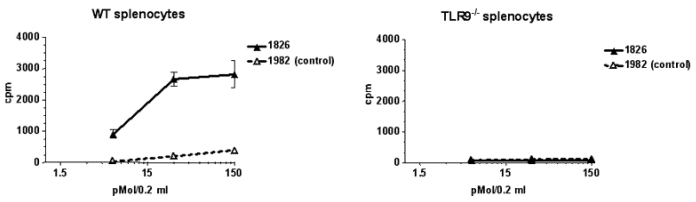


Figure 2: TLR9-dependent mitogenic activity of ODN 1826 (TLRGRADE®) (synthetic) (Prod. No. ALX-746-002) in mouse splenocytes. **Method:** Culture of 5×10^5 cells per 200µl well was performed in serum-free conditions after addition of ODNs at the indicated concentrations. Cell proliferation was analyzed after 72 hours with a 16 hours ^{3}H-thymidine pulse.Only CpG ODN 1826 (Prod. No. ALX-746-002), but not the corresponding GpC control ODN 1982 (Prod. No. ALX-746-201) induces proliferation of wild type mouse splenocytes. Induction of cell proliferation is absolutely dependent on the presence of TLR9 as addressed with cells derived from TLR9-deficient mice. Note the logarithmic scale for the x and y-axis and the high activity of the active ODNs: max. stimulation is already achieved with 0.010-0.100nmol per 200µl well (10-100nM, corresponding to ~0.5-5ug/ml).

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Aqueous stock solution is stable for 1 day when stored at +4°C.
Handling	Protect from light. For maximum product recovery after thawing, centrifuge the vial before opening the cap. After reconstitution, prepare aliquots and store at -20°C.
Long Term Storage	+4°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	CpG-B
Couple Target	TLR, TLR9
Couple Type	Ligand
Endotoxin Content	<0.002EU/μg (LAL test; BioWhittaker)
Formulation	Lyophilized. Sterile.
MW	6383 (ammonium salt)
Purity Detail	Activity and endotoxin tested – TLRGRADE®.
Quantity	15nmol (~96μg). Sufficient for at least 100 cellular activation assays at 0.1-0.5μg/well when performed in a 200μl assay volume (i.e. 96 well microtiter plate).
Reconstitution	For a 100μM stock solution, dissolve the total vial content in 150μl endotoxin-free water (included) or PBS (to order separately).To obtain optimal dissolving we recommend the following procedure:- Add 50% of the solvent and let dissolve for 10 min.- Add remaining 50% of the solvent and mix thoroughly.- Moderate warming may aid dissolving.
Sequence	5’-tccatga**cg**ttcctga**cg**tt-3’ (lower case letters indicate phosphorothioate linkage).

Source	Synthetic.
Technical Info / Product Notes	Includes 1 vial of ddWater (endotoxin-free) (Prod. No. ALX-505-008). For inactive control compound, please see Prod. No. ALX-746-201.

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