

## Diguanylate Cyclase from *Agrobacterium vitis*, recombinant

Cat. No. NATE-1692

Lot. No. (See product label)

### Introduction

**Description** The diguanylate cyclase from *Agrobacterium vitis* has been engineered to remove phosphodiesterase activity, allowing for production of cyclic-diGMP from guanosine triphosphate (GTP) without the production of 5'-phosphoguanylyl-(3',5')-guanosine (pGpG).

**Applications** Useful for producing cyclic-diGMP from GTP without production of pGpG Completely lacks unwanted phosphodiesterase activity No product inhibition even at high concentrations of GTP Remains active while immobilized to solid resin and retain enzymatic activity after several months of storage Can be used to synthesize radiolabeled cyclic diGMP from radiolabeled GTP

**Synonyms** DGC; PleD; EC 2.7.7.65; 146316-82-7; Engineered Diguanylate Cyclase

### Product Information

**Species** *Agrobacterium vitis*

**Source** *E. coli*

**Form** Liquid

**Formulation** 0.1 mg/ml (100 U/μl) solution in 50 mM Tris-HCl, 100 mM NaCl, 5 mM DTT and 20% glycerol pH 8.0

**EC Number** EC 2.7.7.65

**CAS No.** 146316-82-7

**Molecular Weight** 56 kDa

**Purity** >99% based on SDS-PAGE analysis with coomassie blue

**Activity** 7.5 nmol min<sup>-1</sup>

**Concentration** 0.8mg/mL

**Thermal stability** Reactions can be run at 25 to 37 °C with 50 mM Tris HCl, pH 7.5 containing 5 mM MgCl<sub>2</sub> as the buffer

**Buffer** 50 mM Tris-HCl, pH 7.4, 5 mM β-mercaptoethanol, 10% glycerol, 50 mM arginine, 50 mM glutamic acid, 200 mM sodium chloride, 500 μM ethylenediaminetetraacetic acid (EDTA) and 10% glycerol.

**Unit Definition** One unit (U) is 1 μmole of H<sub>2</sub> evolved min<sup>-1</sup> mg<sup>-1</sup>.

### Storage and Shipping Information

**Storage** at -80 °C; Multiple freeze/thaw cycles are not recommended