

Recombinant Rat ADP-ribosyltransferase 2b, His-tagged

Cat. No. Art2b-2067R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat ADP-ribosyltransferase 2b is produced in <i>E. coli</i> with a C-terminus His-tag.
Species	Rat
Source	E.coli
Description	Extracellular NAD induces the ATP-independent activation of the ionotropic P2X(7) purinergic receptor (P2X(7)R) in murine T lymphocytes via a novel covalent pathway involving ADP-ribosylation of arginine residues on the P2X(7)R ectodomain. This modification is catalyzed by ART2.2, a GPI-anchored ADP-ribosyltransferase (ART) that is constitutively expressed in murine T cells. We previously reported that ART2.1, a related ecto-ART, is up-regulated in inflammatory murine macrophages that constitutively express P2X(7)R. Thus, we tested the hypothesis that extracellular NAD acts via ART2.1 to regulate P2X(7)R function in murine macrophages. Coexpression of the cloned murine P2X(7)R with ART2.1 or ART2.2 in HEK293 cells verified that P2X(7)R is an equivalent substrate for ADP-ribosylation by either ART2.1 or ART2.2. However, in contrast with T cells, the stimulation of macrophages or HEK293 cells with NAD alone did not activate the P2X(7)R. Rather, NAD potentiated ATP-dependent P2X(7)R activation as indicated by a left shift in the ATP dose-response relationship.
Concentration	0.5mg/ml.

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Formulation	Liquid. In PBS containing 50% glycerol.
Purity	≥98%.
Storage	-80°C. Avoid freeze/thaw cycles.
GENE INFORMATION	
Gene Name	Art2b ADP-ribosyltransferase 2b [Rattus norvegicus]
Synonyms	Art2b; ADP-ribosyltransferase 2b, ADP-ribosyltransferase 2a; Cell surface alloantigen peripheral T-cell antigen; T cell differentiation marker RT6.1; T-cell NAD(P)(+)--arginine ADP-ribosyltransferase 1; T-cell NAD(P)(+)--arginine ADP-ribosyltransferase 2; T-cell ecto-ADP-ribosyltransferase 1; T-cell ecto-ADP-ribosyltransferase 2; T-cell mono(ADP-ribosyl)transferase 1; T-cell mono(ADP-ribosyl)transferase 2; T-cell surface protein Rt6.1; T-cell surface protein Rt6.2; alloantigen Rt6.1; alloantigen Rt6.2; cell surface alloantigen 6; mono(ADP-ribosyl)transferase 2A; mono(ADP-ribosyl)transferase 2B; LY2; Rt6; Ag-F; Art2; Ly-2; PtaA; Art2a; RT6.1; RT6.2; MGC116041; Art2b
Gene ID	293152
mRNA Refseq	NM_198735
Protein Refseq	NP_942030
UniProt ID	P17982
Chromosome Location	1q32