

## ART1 Protein, Cynomolgus (HEK293, His)

<b>Cat. No.:</b>	HY-P76734
<b>Synonyms:</b>	NAD(P)(+)-arginine ADP-ribosyltransferase; Mono(ADP-ribosyl)transferase
<b>Species:</b>	Cynomolgus
<b>Source:</b>	HEK293
<b>Accession:</b>	XP_005579037 (Q23-N294)
<b>Gene ID:</b>	102142531
<b>Molecular Weight:</b>	Approximately 33-34 kDa due to the glycosylation.

### PROPERTIES

<b>AA Sequence</b>	<pre> Q S H P I T R R D L   F S Q E M P L D M A   L A S F D D Q Y A G   C A A A M T A A L P D L N H T E F Q A N   K V Y A D G W T L A   S S Q W Q E R Q A W   G P E W S L S P T R P P P P L G F R D   E H G V A L L A Y T   A N S P L H K E F N   A A V R E A G R S R A H Y L H H F S F K   T L H F L L T E A L   Q L L G R G Q R P P   R C H Q V F R G V H G L H F R P A G P G   A T V R L G G F A S   A S L K N V A A Q Q   F G E D T F F G I W T C L G A P I K G Y   S F F P G E E E V L   I P P F E T F Q V I   N A S R P A Q G P A R I Y L R A L G K R   S T Y N C E Y I K D   K K C K S G P C H L   D N           </pre>
<b>Biological Activity</b>	Measured in a cell proliferation assay using A549 cells. The ED <sub>50</sub> for this effect is 17.43 ng/mL. Corresponding to a specific activity is 5.737×10 <sup>4</sup> Unit/mg.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/μg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	NAD(P)(+)-arginine ADP-ribosyltransferase (ART1), an arginine-specific ADP-ribosyltransferase, catalyzes the transfer of ADP-ribose moiety to arginine residues on an acceptor protein using nicotinamide adenine dinucleotide (NAD <sup>+</sup> ) as a
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substrate, thus eliciting changes in the activities and functions of the acceptor proteins. ART1 is involved in the regulation of a diverse array of pathophysiological processes, including proliferation, invasion, apoptosis, autophagy and angiogenesis of colorectal cancer (CRC) cells. ART1 plays a crucial role in the elevation of glucose consumption in CT26 cells and may regulate GLUT1-dependent glycolysis in CRC via the PI3K/AKT/HIF1 $\alpha$  pathway. In addition, ART1 plays a role in glycolysis and energy metabolism under high glucose conditions and promotes angiogenesis in colorectal cancer cells through the PI3K/AKT pathway<sup>[1]</sup>.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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