

**RECOMBINANT HUMAN ADENOSINE A<sub>2A</sub> RECEPTOR**
**2019**
**Protein information**

<b>Target Name</b>	Adenosine A <sub>2A</sub> receptor (A <sub>2A</sub> receptor)
<b>Catalogue Number</b>	PP1
<b>Class</b>	GPCR Class A
<b>Sequence</b>	Full-length, wildtype sequence, with a N-terminus <b>Strep tag II</b> , <b>8xHis-tag</b> , and <b>TEV protease cleavage site</b> : <b>MWSHPQFEKHHHHHHH</b> <b>ENLYFQG</b> PIMGSSVYITVELAIAVLAILGNVLVCWAVWLNSNLQNVNTNY FVVS <sup>L</sup> AAADIAVG <sup>L</sup> LAIPFAITISTGFCAACHGCLFIACFVLVLTQSSIFSLLAIAIDRYIAIRIPLRYNGL VTGTRAKGIIAICWVLSFAIGLTPMLGWN <sup>N</sup> CGQPKEGKNHSQGC <sup>G</sup> EGQVACLFEDV <sup>V</sup> PMNYMVYF NFFACVLV <sup>P</sup> LLLMLGVYLRIFLAARRQLKQMESQPLPGERARSTLQKEVHAAKSLAIIVGLFALCWLPL HIINCFTFFCPDCSHAPLWLMYLAIVLSHTNSV <sup>V</sup> NPFYAYRIREFRQTFRKIIRSHVLRQQEPFKAAG TSARVLA <sup>A</sup> HGSDGEQVSLRLNGHPPGVWANGSAPHPERRPNGYALGLVSGGSAQESQ <sup>G</sup> NTGLPDV ELLSHELKGVCEPPGLDDPLAQDGAGVS
<b>Affinity Tag</b>	His/Strep (both N-terminal)
<b>Origin</b>	Human (Homo sapiens)
<b>Theor. MW</b>	47,7kDa
<b>Accession #</b>	P29274 (UniProt)

**Protein production**

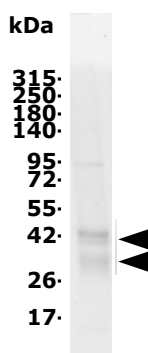
<b>Expression system</b>	Sf9 insect cells (baculovirus)
<b>Purification</b>	Immobilized Metal Affinity Chromatography
<b>Purity</b>	>90%
<b>Activity</b>	Confirmed by radiobinding assay
<b>Concentration</b>	Up to 5mg/ml
<b>Sample Buffer</b>	50mM Hepes pH 7.4, 200mM NaCl, 0.05%/0.006% DDM/CHS
<b>Available quantity</b>	From 10µg up to mg scale
<b>References</b>	1- Igonet S et al. Stabilization of native and functional Adenosine receptor. <i>Scientific Reports</i> . 2018 May 25; doi.org/10.1038/s41598-018-26113-0 2- Jawhari A. Towards Native and Stable GPCRs for Conformational Antibody Development. <i>Discovery on Target</i> , Boston 2015. 3- Desuzinges Mandon E. et al. Novel systematic detergent screening method for membrane proteins solubilization. <i>Anal Biochem</i> . 2017 Jan 15;517:40-49.

**Miscellaneous**

<b>Shipment Temperature</b>	Dry ice
<b>Storage conditions</b>	Store at -80°C



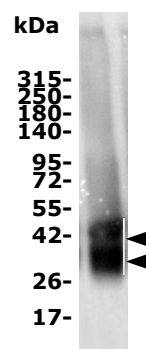
## Quality Controls (Purity and Activity):



SDS-PAGE, 4-15% acrylamide gel  
Bio-rad Stain-Free™ detection

### SDS-PAGE, Stain-Free detection

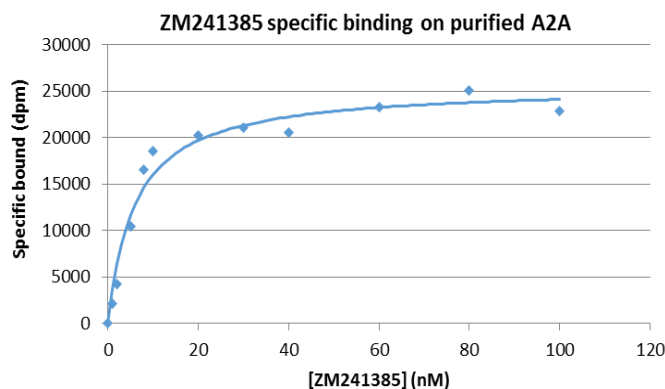
Purified A<sub>2A</sub> was migrated on a 4-15% Tris-glycine SDS-PAGE and the total proteins were Stain-Free detected. Black arrows indicate the target. Upper arrows indicate full-length A<sub>2A</sub>. Lower arrow indicate shorter A<sub>2A</sub> resulting from partial cleavage of C-term end.



SDS-PAGE, 4-15% acrylamide gel  
WB Anti-ICL3 A<sub>2A</sub> antibody (7F6-G5-A2)

### SDS-PAGE, western blotting

Purified A<sub>2A</sub> was migrated on a 4-15% Tris-glycine SDS-PAGE, transferred to pvdf membrane and immunodetected with a monoclonal anti- ICL3-A<sub>2A</sub> (7F6-G5-A<sub>2</sub>, SCBT). Black arrows indicate the target.



### QC: Activity measured by radiobinding assay

Binding of [3H]ZM241385 was measured on purified A<sub>2A</sub>. A K<sub>D</sub> of 6nM was determined for ZM241385.

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