

RECOMBINANT HUMAN ADENOSINE A_{2A} RECEPTOR
2019
Protein information

Target Name	Adenosine A _{2A} receptor (A _{2A} receptor)
Catalogue Number	PP1
Class	GPCR Class A
Sequence	Full-length, wildtype sequence, with a N-terminus Strep tag II , 8xHis-tag , and TEV protease cleavage site : MW SH PQ FE K H H H H H H H E N L Y F Q G P I M G S S V Y I T V E L A I A V L A I L G N V L V C W A V W L N S N L Q N V T N Y F V V S L A A A D I A V G V L A I P F A I T I S T G F C A A C H G C L F I A C F V L V L T Q S S I F S L L A I A I D R Y I A I R I P L R Y N G L V T G T R A K G I A I C W V L S F A I G L T P M L G W N N C G Q P K E G K N H S Q G C G E G Q V A C L F E D V V P M N Y M V Y F N F F A C V L V P L L L M L G V Y L R I F L A A R R Q L K Q M E S Q P L P G E R A R S T L Q K E V H A A K S L A I I V G L F A L C W L P L H I I N C F T F F C P D C S H A P L W L M Y L A I V L S H T N S V N P F I Y A Y R I R E F R Q T F R K I I R S H V L R Q Q E P F K A A G T S A R V L A A H G S D G E Q V S L R L N G H P P G V W A N G S A P H P E R R P N G Y A L G L V S G S A Q E S Q G N T G L P D V E L L S H E L K G V C P E P P G L D D P L A Q D G A G V S
Affinity Tag	His/Strep (both N-terminal)
Origin	Human (Homo sapiens)
Theor. MW	47,7kDa
Accession #	P29274 (UniProt)

Protein production

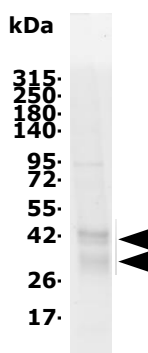
Expression system	Sf9 insect cells (baculovirus)
Purification	Immobilized Metal Affinity Chromatography
Purity	>90%
Activity	Confirmed by radiobinding assay
Concentration	Up to 5mg/ml
Sample Buffer	50mM Hepes pH 7.4, 200mM NaCl, 0.05%/0.006% DDM/CHS
Available quantity	From 10µg up to mg scale
References	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

Shipment Temperature	Dry ice
Storage conditions	Store at -80°C



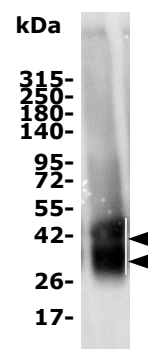
Quality Controls (Purity and Activity):



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

SDS-PAGE, Stain-Free detection

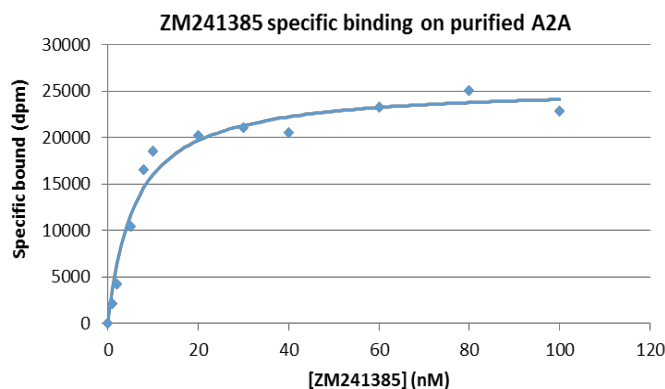
Purified A_{2A} was migrated on a 4-15% Tris-glycine SDS-PAGE and the total proteins were Stain-Free detected. Black arrows indicate the target. Upper arrows indicate full-length A_{2A}. Lower arrow indicate shorter A_{2A} resulting from partial cleavage of C-term end.



SDS-PAGE, 4-15% acrylamide gel
WB Anti-ICL3 A_{2A} antibody (7F6-G5-A2)

SDS-PAGE, western blotting

Purified A_{2A} was migrated on a 4-15% Tris-glycine SDS-PAGE, transferred to pvdf membrane and immunodetected with a monoclonal anti- ICL3-A_{2A} (7F6-G5-A₂, SCBT). Black arrows indicate the target.



QC: Activity measured by radiobinding assay

Binding of [3H]ZM241385 was measured on purified A_{2A}. A K_D of 6nM was determined for ZM241385.

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