A_{2A} (Adenosine receptor A_{2A})

(Cat. # 786-1408 & 786-1409)

ITEM(S) SUPPLIED

Cat. #	Description	Size
786-1408	A_{2A} (Adenosine receptor A_{2A})	10 µg
786-1409	A_{2A} (Adenosine receptor A_{2A})	50 µg

PROTEIN INFORMATION

- Target Name: Adenosine A_{2A} receptor
- Class: GPCR Class A
- Sequence: Full-length, wildtype sequence, with a N-terminus Strep tag II, 8xHis-tag, and TEV protease cleavage site:

  MWSHPQFEKHHHHHHHHENLYFQGPIMGSSVYITVELAIAVLAILGNVLVCWAV
  WLNSNLQNVTNYFVVSLAAADIAVGVLAIPFAITISTGFCAACHGCLFIACFVLVL
  TQSSIFSLLAIAIDRYIAIRIPLRYNGLVTGTRAKGIIAICWVLSFAIGLTPMLGWN
  NCGQPKEGKNHSQGCGEGQVACLFEDVVPMNYMVYFNFFACVLVPLLLMLG
  VYLRIFLAARRQLKQMESQPLPGERARSTLQKEVHAAKSLAIIVGLFALCWLPLH
  IINCFTFFCPDCSHAPLWLMYLAIVLSHTNSVVNPFIYAYRIREFRQTFRKIIRSHV
  LRQQEPFKAAGTSARVLAAHGSDGEQVSLRLNGHPPGVWANGSAPHPERRPNG
  YALGLVSGGSAQESQGNTGLPDVELLSHELKGVCPEPPGLDDPLAQDGAGVS

- Affinity Tag: His/Strep (both N-terminal)
- Origin: Human
- Theoretical MW: 47.7 kDa
- 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 5 mg/ml
- Available quantity: 10 µg and 50 µg (bulk or custom sizes available)

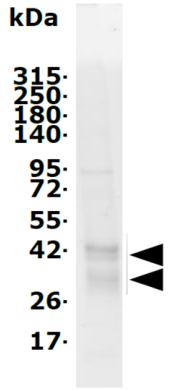
STORAGE AND HANDLING

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

QUALITY CONTROLS (PURITY AND ACTIVITY)

Figure 1. SDS-PAGE, Stain-Free detection

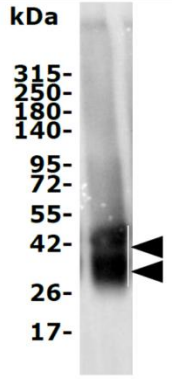
Purified A2A was migrated on a 4-15% Tris-glycine SDS-PAGE and the total proteins were Stain-Free detected. Black arrows indicate the target. Upper arrows indicate full-length A2A. Lower arrow indicate shorter A2A resulting from partial cleavage of C-term end.



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

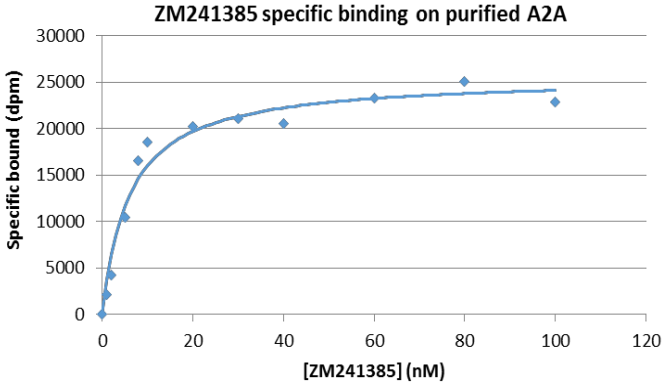
Figure 2. SDS-PAGE, western blotting

Purified A2A was migrated on a 4-15% Tris-glycine SDS-PAGE, transferred to pvdf membrane and immunodetected with a monoclonal anti- ICL3-A2A (7F6-G5-A2, SCBT). Black arrows indicate the target.



SDS-PAGE, 4-15% acrylamide gel
WB Anti-ICL3 A2A antibody (7F6-G5-A2)

Figure 3. QC: Activity measured by radiobinding assay



Binding of [3H]ZM241385 was measured on purified A2A. A K_D of 6nM was determined for ZM241385.

REFERENCES

1. Igonet S et al. Stabilization of native and functional Adenosine receptor (in preparation).
2. Jawhari A. Towards Native and Stable GPCRs for Conformational Antibody Development. *Discovery on Target*, Boston 2015.
3. Desuzinges Mandon E. et al. Novel systematic detergent screening method for membrane proteins solubilization. *Anal Biochem*. 2017 Jan 15;517:40-49.

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