

**RECOMBINANT HUMAN MELATONIN RECEPTOR TYPE 1A**

**2019**

**Protein information**

<b>Target Name</b>	Melatonin receptor type 1A (MT <sub>1</sub> )
<b>Catalogue Number</b>	PP2
<b>Class</b>	GPCR Class A
<b>Sequence</b>	Full-length, wildtype sequence, with a N-terminus twin <b>Strep tag II</b> , <b>10xHis-tag</b> , and <b>TEV protease cleavage site</b> :  MASAW <b>SH</b> P <b>Q</b> FEKGGGSGGGSGGSA <b>W</b> SH <b>P</b> Q <b>F</b> EKGA <b>HHHHHHHHHH</b> ENLY <b>F</b> Q <b>Q</b> NGSALPNAS QPVL <b>R</b> GDGARPSWLASALACVL <b>I</b> FT <b>I</b> V <b>D</b> ILGNLLVILSVYRNK <b>K</b> LRNAGN <b>I</b> F <b>V</b> SLAVADLVVA <b>I</b> Y <b>P</b> PLV <b>L</b> MS <b>I</b> F <b>N</b> NGWNLG <b>Y</b> LHCQ <b>V</b> SG <b>F</b> LM <b>G</b> LS <b>V</b> IG <b>S</b> IF <b>N</b> IT <b>G</b> I <b>A</b> IN <b>R</b> Y <b>C</b> Y <b>I</b> CH <b>S</b> L <b>K</b> Y <b>D</b> K <b>L</b> Y <b>S</b> S <b>K</b> N <b>S</b> L <b>C</b> Y <b>V</b> LL <b>I</b> W <b>L</b> L <b>T</b> LA <b>A</b> V <b>L</b> PN <b>L</b> R <b>A</b> GT <b>L</b> Q <b>Y</b> DP <b>R</b> I <b>Y</b> S <b>C</b> T <b>F</b> A <b>Q</b> S <b>V</b> SS <b>A</b> Y <b>T</b> I <b>A</b> V <b>V</b> F <b>H</b> FL <b>V</b> PM <b>I</b> I <b>V</b> I <b>F</b> C <b>Y</b> L <b>R</b> I <b>W</b> I <b>L</b> V <b>L</b> Q <b>V</b> R <b>Q</b> R <b>V</b> K <b>P</b> D <b>R</b> K <b>P</b> K <b>L</b> K <b>P</b> Q <b>D</b> FR <b>N</b> F <b>V</b> TM <b>F</b> V <b>V</b> F <b>V</b> L <b>F</b> A <b>I</b> C <b>W</b> A <b>P</b> L <b>N</b> F <b>I</b> G <b>L</b> A <b>V</b> A <b>S</b> D <b>P</b> A <b>S</b> M <b>V</b> P <b>R</b> I <b>E</b> W <b>L</b> F <b>V</b> A <b>S</b> Y <b>M</b> A <b>Y</b> F <b>N</b> S <b>C</b> L <b>N</b> A <b>I</b> I <b>Y</b> G <b>L</b> L <b>N</b> Q <b>N</b> F <b>R</b> K <b>E</b> Y <b>R</b> R <b>I</b> I <b>V</b> S <b>L</b> C <b>T</b> A <b>R</b> V <b>F</b> F <b>V</b> D <b>S</b> S <b>N</b> D <b>V</b> A <b>D</b> R <b>V</b> K <b>W</b> K <b>P</b> S <b>L</b> M <b>T</b> N <b>N</b> N <b>V</b> V <b>K</b> V <b>D</b> S <b>V</b>
<b>Affinity Tag</b>	Strep <sub>2</sub> /His (both N-terminal)
<b>Origin</b>	Human (Homo sapiens)
<b>Theor. MW</b>	44,8 kDa
<b>Accession #</b>	P48039 (UniProt)

**Protein production**

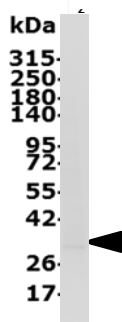
<b>Expression system</b>	Sf9 insect cells (baculovirus)
<b>Purification</b>	Solubilized using CALIXAR patented technology and purified using Metal Affinity Chromatography in presence of Sarkosyl/CHS
<b>Purity</b>	>90%
<b>Activity</b>	Confirmed by radiobinding assay and activation of Gi
<b>Concentration</b>	Up to 5mg/ml
<b>Sample Buffer</b>	25mM Na <sub>2</sub> HPO <sub>4</sub> pH 8.0, 150mM NaCl, 0.86%/0.18% Sarkosyl/CHS
<b>Available quantity</b>	From 10µg up to mg scale
<b>References</b>	1- Daulat AM. Et al. Purification and identification of G protein-coupled receptor protein complexes under native conditions. <i>Mol Cell Proteomics</i> . 2007 May;6(5):835-44. Epub 2007 Jan 9. 2- Igonet et al. <i>In preparation</i> .

**Miscellaneous**

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



## Quality Controls (Purity and Activity):



**SDS-PAGE.**

IMAC elution fraction of MT<sub>1</sub> was migrated on a 4-15% Tris-glycine SDS-PAGE and the total proteins were Stain-Free detected. The black arrow indicates full-length MT<sub>1</sub>.



**Western blotting**

IMAC elution fraction of MT<sub>1</sub> was migrated on a 4-15% Tris-glycine SDS-PAGE, transferred to pvdf membrane and immunodetected with a rabbit polyclonal anti- MT<sub>1</sub> (Fox 25.7, from Ralf Jockers laboratory). Black arrows indicate the target.

**Other data on purified MT<sub>1</sub> will be available soon.**

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