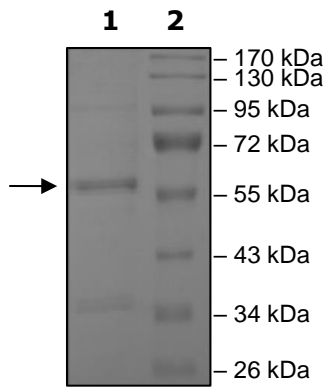


## Product Information

<b>Description:</b>	Recombinant human CAMK2 $\beta$ (Calcium/calmodulin Dependent Protein Kinase II Beta), encompassing amino acids 1-503. This construct contains an N-terminal His-tag. The recombinant protein was affinity purified and is active.
<b>Construct:</b>	CAMK2 $\beta$ (His-Full Length)
<b>Concentration:</b>	0.10 mg/ml
<b>Species:</b>	Human
<b>Formulated In:</b>	50 mM Sodium Phosphate, pH 7.0, 300 mM NaCl, 150 mM Imidazole, 0.1 mM PMSF, 0.2 mM DTT, 25% glycerol
<b>Expression System:</b>	Sf9
<b>Format:</b>	Aqueous buffer solution
<b>Stability:</b>	At least 6 months at -80°C. Avoid freeze/thaw cycles.
<b>Storage:</b>	-80°C
<b>Genbank Accession:</b>	NM_172081
<b>MW:</b>	58 kDa
<b>Purity:</b>	70%
<b>Specific Activity:</b>	2,109 pmol/min/ $\mu$ g
<b>Assay Conditions:</b>	<p>CAMK2<math>\beta</math> activity was measured by using the autacamtide 2 synthetic peptide substrate (KKALRRQETVDAL-amide), diluted in distilled water to a final concentration of 1 mg/ml, in the ADP Glo™ assay (Promega #V9101). Reaction was initiated by mixing increasing amounts of the CAMK2<math>\beta</math> with 25 <math>\mu</math>M ATP in 40 mM Tris-HCl, pH 7.4, 20 mM MgCl<sub>2</sub>, 0.1 mg/ml BSA prepared with 250 <math>\mu</math>M DTT, co-factor calcium/calmodulin and substrate at a final concentration of 200 <math>\mu</math>g/ml final concentration.</p> <p>After a 40-minute incubation at room temperature, the reaction was terminated by addition of ADP-Glo™ Reagent, followed by a subsequent 40-minute incubation at room temperature. Kinase Detection Reagent was added, and the reaction was incubated for another 30 minutes at ambient temperature. Detection of luminescence was measured using the Luminescence Module Protocol on GloMax®-Multi Microplate Multimode Reader. The corrected activity (RLU) was calculated by removing the blank value for each sample. The Kinase Specific Activity was calculated as follows: <math>RLU / (\text{specific activity of ADP in RLU/pmol}) * (\text{Reaction time in min}) * (\text{Enzyme amount in } \mu\text{g or mg})</math>. The blank was determined from a “no kinase” sample by replacing the enzyme solution with an equal volume of Kinase Dilution Buffer IX (1X).</p>
<b>Applications:</b>	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

## Quality Control Data

### 4-20% SDS-Page Coomassie Staining



### Specific Activity

