



# Recombinant Human Stanniocalcin-2 (STC2)

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Code</b>      | CSB-YP022822HU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Storage</b>           | Store at -20°C, for extended storage, conserve at -20°C or -80°C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Uniprot No.</b>       | O76061                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Product Type</b>      | Recombinant Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Immunogen Species</b> | Homo sapiens (Human)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Purity</b>            | ≥85% (SDS-PAGE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Sequence</b>          | TDATNP PEGPQDRSSQ QKGRLSLQNT AEIQHCLVNA GDVGCVFEC<br>FENNSCEIRG LHGICMTFLH NAGKFDAQ GK SFIKDALKCK AHALRHRFGC<br>ISRKCPAIRE MVSQ LQRECY LKHDLCAAAQ ENTRVIVEMI HFKDLLLHEP<br>YVDLVNLLLT CGEEVKEAIT HSVQVQCEQN WGS LCSILSF CTS AIQKPPT<br>APPERQPQVD RTKLSRAHHG EAGHHLPEPS SRETGRGAKG<br>ERGSKSHRNA HARGRVGGLG AQGPSGSSEW EDEQSEYS DI RR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>            | Yeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Target Names</b>      | STC2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Protein Names</b>     | Recommended name: Stanniocalcin-2 Short name= STC-2 Alternative name(s):<br>Stanniocalcin-related protein Short name= STC-related protein Short name=<br>STCRP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Expression Region</b> | 25-302                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Notes</b>             | Repeated freezing and thawing is not recommended. Store working aliquots at<br>4°C for up to one week.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Tag Info</b>          | Tag type will be determined during the manufacturing process.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Protein Length</b>    | Full Length of Mature Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Target Details</b>    | This gene encodes a secreted, homodimeric glycoprotein that is expressed in a<br>wide variety of tissues and may have autocrine or paracrine functions. The<br>encoded protein has 10 of its 15 cysteine residues conserved among<br>stanniocalcin family members and is phosphorylated by casein kinase 2<br>exclusively on its serine residues. Its C-terminus contains a cluster of histidine<br>residues which may interact with metal ions. The protein may play a role in the<br>regulation of renal and intestinal calcium and phosphate transport, cell<br>metabolism, or cellular calcium/phosphate homeostasis. Constitutive<br>overexpression of human stanniocalcin 2 in mice resulted in pre- and postnatal<br>growth restriction, reduced bone and skeletal muscle growth, and<br>organomegaly. Expression of this gene is induced by estrogen and altered in<br>some breast cancers. |
| <b>Reconstitution</b>    | We recommend that this vial be briefly centrifuged prior to opening to bring the<br>contents to the bottom. Please reconstitute protein in deionized sterile water to a<br>concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final<br>concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final<br>concentration of glycerol is 50%. Customers could use it as reference.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



## Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.