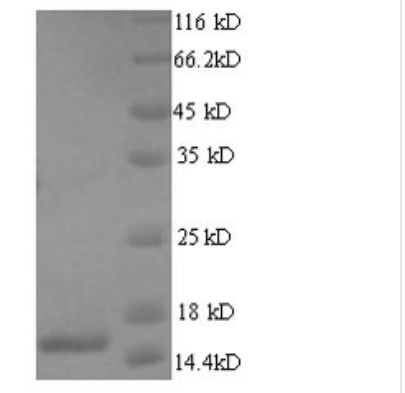
Recombinant Human T cell receptor alpha chain constant (TRAC)

Product Code	CSB-YP024144HU
Storage	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.
Uniprot No.	P01848
Storage Buffer	Tris-based buffer,50% glycerol
Product Type	Recombinant Proteins
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	PNIQNPDPAVYQLRDSKSSDKSVCLFTDFDSQTNVSQSKDSDVYITDKTVLDM RSMDFKSNSAVAWSNKSDFACANAFNNSIIPEDTFFPSPESSCDVKLVEKSFE TDTNLNFQNLSVIGFRILLLKVAGFNLLMTLRLWSS
Lead Time	3-7 business days
Research Area	Immunology
Source	Yeast
Gene Names	TRAC
Protein Names	Recommended name: T-cell receptor alpha chain C region
Expression Region	1-142aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	17.9kDa
Protein Description	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Intact human T cell receptor alpha constant (TRAC) cDNA (1-142aa) with an N-terminal 6xHis-tag was expressed in the yeast. The forming protein is the recombinant full-length human TRAC protein. The purity of this protein is greater than 90% determined by SDS-PAGE. Under reducing conditions, the gel showed a molecular weight band of about 16 kDa. This recombinant TRAC protein can be used as the immunogen for antibody synthesis. Besides, it also may be applied in the studies of TRAC-related immunology.

The extracellular region of αβ T cell receptors (TCRs) is made up of an α chain and a β chain, each containing Ig-like variable and constant domains. TRAC, the TCR Cα domain, is significant in differing from the classical IgC1 domain. Substantial evidence indicated that TRAC interfaces with CD3. Mutagenesis has demonstrated that the interactions of CD3δ? and CD3γ? subunits with the TcR Cα and Cβ domains, respectively, contribute to the stability and function of the TCR–CD3 signaling complex. Gijs I. van Boxel etc. concluded that the TCR Cα domain can also adopt two very different stable conformations, a fundamental property that is potentially central to TCR function and that the TCR Cα domain may facilitate the "β-strand slippage."