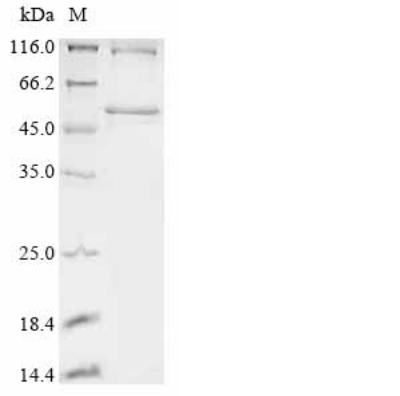
Recombinant Human Ankyrin repeat and SOCS box protein 11 (ASB11)

Product Code	CSB-EP855501HU
Abbreviation	Recombinant Human ASB11 protein
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.	Q8WXH4
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Human Ankyrin repeat and SOCS box protein 11(ASB11)
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MEDGPVFYGFKNIFITMFATFFFFKLLIKVFLALLTHFYIVKGNRKEAARIAEEIYG GISDCWADRSPLHEAAAQGRLLALKTLIAQGVNVNLVTINRVSSLHEACLGGH VACAKALLENGAHVNGVTVHGATPLFNACCSGSAACVNVLLEFGAKAQLEVH LASPIHEAVKRGHRECMEILLANNVNIDHEVPQLGTPLYVACTYQRVDCVKKLL ELGASVDHGQWLDTPLHAAARQSNVEVIHLLTDYGANLKRRNAQGKSALDLA APKSSVEQALLLREGPPALSQLCRLCVRKCLGRACHQAIHKLHLPEPLERFLLY Q
Research Area	Others
Source	E.coli
Target Names	ASB11
Expression Region	1-323aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	48.3 kDa
Protein Length	Full Length
Image	



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

Description

Recombinant human Ankyrin repeat and SOCS box protein 11 (ASB11) production in E. coli starts with cloning the target gene (1-323aa of ASB11) into an expression vector, which is transformed into E. coli cells. The bacteria are cultured under conditions that induce protein expression. Once adequate growth is achieved, the cells are lysed to release the recombinant ASB11 protein. The protein is purified from the cell lysate through affinity chromatography. Protein purity is evaluated using SDS-PAGE, reaching over 85%.

Human ASB11, a member of the ankyrin repeat and suppressor of the cytokine signaling (SOCS) box (ASB) family, has been identified as an endoplasmic reticulum-associated ubiquitin ligase [1]. ASB11 interacts with and promotes the ubiquitination of ribophorin 1, which is involved in the glycosylation of nascent proteins [1]. ASB11 plays a crucial role in the BIK protein ubiquitination process, influencing cell survival and showing promise for anti-cancer strategies [2]. Cul5-ASB11 has been identified as the E3 ligase targeting BIK for ubiquitination and degradation, thereby determining cell fate during cellular stress [2]. Furthermore, ASB11 is a major regulator of human embryonic and adult regenerative myogenesis [3][4]. It exhibits high pan-chordate conservation, indicating fundamental functions in chordate physiology [4].

References:
[1] C. Andresen, S. Smedegaard, K. Sylvestersen, C. Svensson, D. Iglesias-Gato, G. Cazzamaliet al., Protein interaction screening for the ankyrin repeats and suppressor of cytokine signaling (socs) box (asb) family identify asb11 as a novel endoplasmic reticulum resident ubiquitin ligase, Journal of Biological Chemistry, vol. 289, no. 4, p. 2043-2054, 2014. https://doi.org/10.1074/jbc.m113.534602
[2] F. Chen, M. Huang, Y. Lin, C. Ho, S. Lin, H. Chenet al., Bik ubiquitination by the e3 ligase cul5-asb11 determines cell fate during cellular stress, The Journal of Cell Biology, vol. 218, no. 9, p. 3002-3018, 2019. https://doi.org/10.1083/jcb.201901156
[3] Y. Li, Uncovering the candidate genes related to sheep body weight using multi-trait genome-wide association analysis, Frontiers in Veterinary Science, vol. 10, 2023. https://doi.org/10.3389/fvets.2023.1206383
[4] J. Tee, M. Silva, A. Rygiel, V. Muncan, R. Bink, G. Brinket al., asb11is a regulator of embryonic and adult regenerative myogenesis, Stem Cells and Development, vol. 21, no. 17, p. 3091-3103, 2012.

https://doi.org/10.1089/scd.2012.0123

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final 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.