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YBC538Mu01 100 $\mu$ g  
Recombinant Islet Cell Autoantigen 1 (ICA1)  
Organism Species: *Mus musculus* (Mouse)

*Instruction  
manual*

FOR IN VITRO USE AND RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

9th Edition (Revised in Jul, 2013)

## [ PROPERTIES ]

Residues: Met1~Gly257 (Accession # P97411), with two N-terminal Tags, His-tag and S-tag.

Host: *E. coli*

Subcellular Location: Cytoplasm. Golgi apparatus membrane; Peripheral membrane protein. Cytoplasmic vesicle, secretory vesicle membrane; synaptic vesicle membrane.

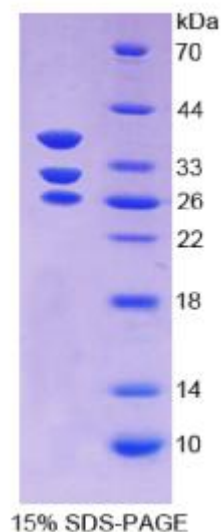
Purity: >95%

Endotoxin Level: <1.0EU per 1 $\mu$ g (determined by the LAL method).

Formulation: Supplied as lyophilized form in 20mM Tris, 500mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and preservative.

Predicted isoelectric point: 8.8

Predicted Molecular Mass: 35.9kDa



The possible reasons that the actual band size differs from the predicted are as follows:  
Accurate Molecular Mass: 26&32&37kDa as determined by SDS-PAGE reducing conditions.



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Applications: SDS-PAGE; WB; ELISA; IP.

(May be suitable for use in other assays to be determined by the end user.)

Note:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

## [ USAGE ]

Reconstitute in ddH<sub>2</sub>O.

## [ STORAGE AND STABILITY ]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.

## [ SEQUENCES ]

The target protein is fused with two N-terminal Tags, His-tag and S-tag, its sequence is listed below.

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MHHHHHSSG LVPRGSGMKE TAAAKFERQH MDSPDLGTTD DDKAMADIGS EF-  
MS G H K C Y S W E L Q D R F A Q D K S V V N K M Q Q K Y W E T K Q A F I K A T G K K E D E H V V A  
SDADLDAKLE LFHSIQRTCL DLSKAIVLYQ KRICFLSQEE NELGKFLRSQ GFQDKTRAGK  
MMQATGKALC FSSQRLALR NPLCRFHQEV ETRHRAISD TWLTVNRMEQ YRTEYRGALL  
W M K D V S Q E L D P D L Y K Q M E K F R K V Q T Q V R L A K K N F D K L K M D V C Q K V D L L G A
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SRCNLLSHML ATYQTLLHF WEKTSHTMAA IHESFKG

## [ REFERENCES ]

1. Gaedigk R., *et al.* (1996) *Genomics* 38:382-391.
2. Karges W.J.P., *et al.* (1997) *Biochim. Biophys. Acta* 1360:97-101.
3. Church D.M., *et al.* (2009) *PLoS Biol.* 7:E1000112-E1000112.
4. Pilon M., *et al.* (2000) *Mol. Biol. Cell* 11:3277-3288.