RPC538Hu01 100µg Recombinant Islet Cell Autoantigen 1 (ICA1) Organism Species: Homo sapiens (Human) *Instruction manual*

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

[PROPERTIES]

Residues: Met1~Gly258 (Accession # Q05084), with two N-terminal Tags, His-tag and S-tag. Host: *E. coli* Subcellular Location: Cytoplasm, cytosol. Golgi apparatus membrane; Cytoplasmic vesicle, secretory vesicle membrane; secretory vesicle. Peripheral membrane protein.

Purity: >95%

Endotoxin Level: <1.0EU per 1µg

(determined by the LAL method).

Formulation: Supplied as lyophilized form in PBS,

pH7.4, containing 5% sucrose, 0.01% sarcosyl.

Predicted isoelectric point: 8.9

Predicted Molecular Mass: 36.0kDa

Accurate Molecular Mass: 27kDa as determined by SDS-PAGE reducing conditions. **Applications:** SDS-PAGE; WB; ELISA; IP.

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

Note: The possible reasons that the actual band size differs from the predicted are as follows:

- 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.

Designed by Cloud-Clone Corp., Assembled by Uscn Life Science Inc. ISO9001:2008; ISO13485:2003 11271 Richmond Avenue Suite H104, Houston, TX 77082, USA | Toll free: 001-888-960-7402 | Fax: 001-832-538-0088 | Http://www.cloud-clone.us | E-mail: mail@cloud-clone.us Export Processing Zone Building F. Wuhan, Hubel 430056, PRC | Toll free: 0086-800-880-0667 | Fax: 0086-27-8425-9551 | Http://www.uscnk.com | E-mail: mail@cloud-clone.us

kDa 70 44 33 26 22 18 14 14 10 15% SDS-PAGE

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[<u>USAGE</u>]

Reconstitute in sterile PBS, pH7.2-pH7.4.

[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.

MHHHHHHSSG LVPRGSGMKE TAAAKFERQH MDSPDLGTDD DDKAMADIGS EF-MSGHKCSYPW DLQDRYAQDK SVVNKMQQKY WETKQAFIKA TGKKEDEHVV ASDADLDAKL ELFHSIQRTC LDLSKAIVLY QKRICFLSQE ENELGKFLRS QGFQDKTRAG KMMQATGKAL CFSSQQRLAL RNPLCRFHQE VETFRHRAIS DTWLTVNRME QCRTEYRGAL LWMKDVSQEL DPDLYKQMEK FRKVQTQVRL AKKNFDKLKM DVCQKVDLLG ASRCNLLSHM LATYQTTLLH FWEKTSHTMAAIHESFKG

[REFERENCES]

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- 2. Ota T., et al. (2004) Nat. Genet. 36:40-45.
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