

Calreticulin (human), (recombinant) (His- tag)

The multifunctional, multi-compartmental protein Calreticulin (Crt) functions as a soluble molecular chaperone of new or misfolded proteins as well as a calcium-binding protein. Most abundant in the ER lumen, Crt expression also occurs in other membrane-bound organelles, the cell surface, and extracellularly. Also known as CRP-55, calregulin and HACBP (high affinity calcium-binding protein). Crt contains the ER retrieval sequence, KDEL, and is the soluble paralog of the ER membrane protein Calnexin (Cnx). Crt's three domains include a 180 residue N-terminal domain, a proline-rich P-domain (residues 189-288) that binds calcium with high affinity and shares homology with Cnx and calmeglin, and a 110 residue C-terminal domain that binds calcium with low affinity but high capacity. The P-domain may interact with the co-chaperone ERp57 (Grp58), a thiol reductase. The NMR structure of the P-domain consists of an extended hairpin that appears to form a curved protrusion from the Crt core domain. Both Crt and its membrane bound homolog CNX interact with proteins and glycoproteins possessing monoglucosylated N-glycans. The Crt/Cnx cycle promotes correct folding, inhibits aggregation of folding intermediates, blocks premature oligomerization, regulates ER degradation, and prevents incompletely folded glycoproteins from exiting to the Golgi complex. Crt also appears to function as an auto-antigen in systemic lupus erythematosus, rheumatoid arthritis, celiac disease, complete congenital heart block, and halothane hepatitis. A diversity of additional functions attributed to Crt includes adhesion, blood function, and cardiac and neuronal development gene expression.

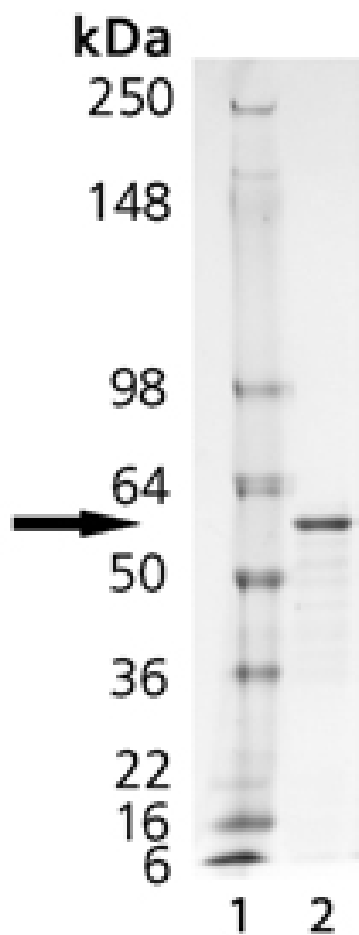
Ordering Information

[Order Online »](#)

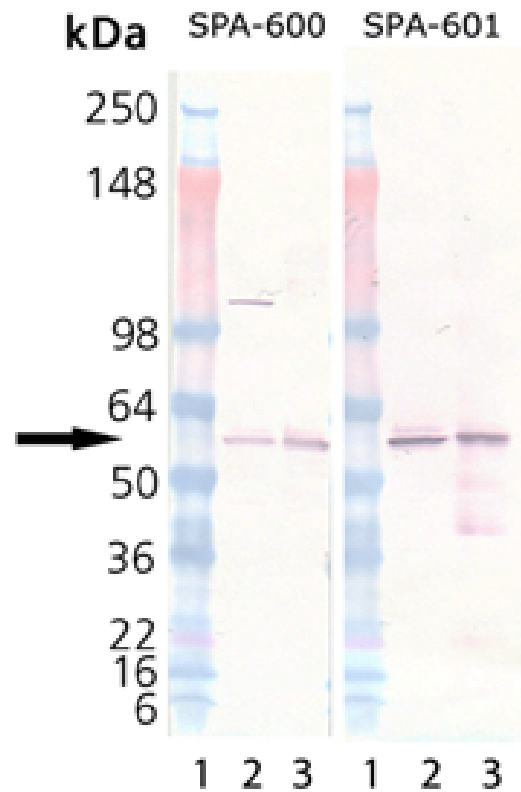
ADI-SPP-600-D	50µg
ADI-SPP-600-F	200µg

Manuals, SDS & CofA

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SDS-PAGE Analysis of Calreticulin (human), (recombinant) (His-tag). Lane 1: MW Marker; Lane 2: 1 μ g Calreticulin.



Western Blot Analysis of Calreticulin (human), (recombinant) (His-tag). Lane 1: MW Marker, Lane 2: HeLa lysate (Prod. No. ADI-LYC-HL100), Lane 3: Calreticulin. Probed with Calreticulin pAb (left) or mAb (right).

Handling & Storage

Long Term Storage -80°C

Shipping Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name CALR, CRT

Application Notes Western blot control.

Formulation Liquid, In 50mM TRIS, pH 7.5, containing 150mM sodium chloride, 5mM calcium chloride and 5% glycerol.

MW ~59kDa

Purity ≥90% (SDS-PAGE; Western blot)

Purity Detail Purified by multi-step chromatography.

Source Produced in *E. coli*. Human calreticulin is fused at the N-terminus to a His-tag.

UniProt ID P27797

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ENZO LIFE SCIENCES,
INC.
Phone: 800.942.0430
[info-
usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office
ENZO LIFE SCIENCES
(ELS) AG
Phone: +41 61 926 8989
[info-
eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands
& Luxembourg
Phone: +32 3 466 0420
[info-
be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

France
Phone: +33 472 440 655
[info-
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany
Phone: +49 7621 5500 526
[info-
de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland
Phone (UK customers):
0845 601 1488
Phone: +44 1392 825900
[info-
uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)