DATASHEET

Version: 2016-08-18

Hsp70-derived octapeptide

Cat. No.: RP20220-1

Size: 1 mg

Alias: Hsp70-derived octapeptide

Description:

A group of tetratricopeptide repeat (TPR)-containing proteins has been shown to interact with the C-terminal domain of the 70 kDa heat-shock cognate protein (hsc70). In the present study, the effect of the TPR-containing proteins, including the C-terminus of hsc70-interacting protein (CHIP), TPR1 and human glutamine-rich TPR-containing protein (hSGT), on refolding of luciferase by DnaJ and hsc70 was investigated. These proteins inhibited the restoration of luciferase activity by the chaperones. The inhibitory effect exerted by TPR1 and hSGT depended upon their binding to hsc70. However, the interaction with hsc70 did not appear to be required for the inhibition of luciferase refolding by CHIP. We also demonstrate that the peptide, GPTIEEVD, corresponding to the C-terminal end of hsc70, abolished the association of [(3)H]hsc70 with CHIP, TPR1 and hSGT. This implied that the GPTIEEVD motif of hsc70 was responsible for interacting with these TPR-containing proteins. However, the GGXP-repeats (where X is any aliphatic residue), another C-terminal conserved motif of vertebrate hsc70s, were not essential for interacting with the TPR-containing proteins. On the basis of mutagenesis studies, it was clear that a unique combination of the functional groups in the GPTIEEVD motif were utilized to interact with each TPR-containing protein, suggesting that inhibitors can be designed and used to elucidate the functional role of these interactions.

Sequence (one-letter code):

GPTIEEVD

Sequence (three-letter code):

{Gly}{Pro}{Thr}{Ile}{Glu}{Glu}{Val}{Asp}

Formula: $C_{36}H_{58}N_8O_{16}$

Molecular Weight: 858.91

Purity: > 95%

Storage:

Store at -20°C. Keep tightly closed. Store in a cool dry place.

Note:

*For Non-Clinical Research Use Only *