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Lieferung & Zahlungsart

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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

eIF6 (h2): 293T Lysate: sc-173845

BACKGROUND

The initiation of protein synthesis in eukaryotic cells is regulated by interactions between protein initiation factors and RNA molecules. Eukaryotic initiation factors (eIFs) are utilized in a sequence of reactions that lead to 80S ribosomal assembly and, ultimately, translation. eIF6 (eukaryotic translation initiation factor 6) is also known as CAB, B(2)GCN homolog, p27(BBP) or B4 integrin interactor and is a 245 amino acid protein that is localized to the cytoplasm, as well as to the nucleolus within the nucleus. The N-terminal and C-terminal subdomains of eIF6 are thought to contain important nucleolar localization sequences. eIF6 may be a regulator of ribosomal function and creation. eIF6 functions to bind and translocate the 60S ribosomal subunit from the nucleus to the cytoplasm, effectively preventing the 60S subunit from associating with the 40S subunit and inhibiting formation of the 80S initiation complex. The regulation of the formation of the 80S ribosomes also regulates transcription. Once translocated to the cytoplasm, the eIF6-60S ribosomal subunit complex is subject to phosphorylation via the RACK1/PKC pathway, an event that results in the dissociation of eIF6 from the 60S subunit. Upregulation of eIF6 is strongly associated with a variety of of cancers, such as ovarian cancer, suggesting that eIF6 may be involved in carcinogenesis.

REFERENCES

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2. Basu, U., et al. 2001. The *Saccharomyces cerevisiae* TIF6 gene encoding translation initiation factor 6 is required for 60S ribosomal subunit biogenesis. Mol. Cell. Biol. 21: 1453-1462.
3. Carotenuto, R., et al. 2005. Phosphorylation of p27(BBP)/eIF6 and its association with the cytoskeleton are developmentally regulated in *Xenopus oogenesis*. Cell. Mol. Life Sci. 62: 1641-1652.
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CHROMOSOMAL LOCATION

Genetic locus: EIF6 (human) mapping to 20q11.22.

PRODUCT

eIF6 (h2): 293T Lysate represents a lysate of human eIF6 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

eIF6 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive eIF6 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.