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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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- Mindermengenzuschlag
- Trockeneiszuschlag
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SANTA CRUZ BIOTECHNOLOGY, INC.

AT_1 (h3): 293T Lysate: sc-158285

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Angiotensin II (Ang II) is an important physiological effector of blood pressure and volume regulation through vasoconstriction, aldosterone release, sodium uptake and thirst stimulation. Although Ang II interacts with two types of cell surface receptors, AT_1 and AT_2, most of the major cardiovascular effects seem to be mediated through AT_1. Molecular cloning of the AT_1 protein has shown it to be a member of the G protein-associated seven transmembrane protein receptor family. Ang II treatment of cells results in activation of several signal transduction pathways as evidenced by tyrosine phosphorylation of several proteins and induction of others. PLC γ is phosphorylated after 30 seconds of treatment with Angiotensin II, indicating this as an early signal transduction event. Ang II treatment also stimulates phosphorylation of Shc, FAK and MAP kinases and induces MKP-1, indicating stimulation of growth factor pathways. Ang II stimulation through AT_1 has been shown to activate the JAK/Stat pathway involving a direct interaction between JAK2 and AT_1 as demonstrated by coimmunprecipitation. The AT_1 receptor has no cytoplasmic kinase domain, but is able to function as a substrate for Src kinases and has several putative phosphorylation sites.

REFERENCES

1. Murphy, T.J., et al. 1991. Isolation of a cDNA encoding the vascular type-1 Angiotensin II receptor. Nature 351: 233-236.
2. Tsuda, T., et al. 1991. Vasoconstrictor-induced protein-tyrosine phosphorylation in cultured vascular smooth muscle cells. FEBS Lett. 285: 44-48.
3. Duff, J.L., et al. 1993. Angiotensin II induces 3CH134, a protein-tyrosine phosphatase, in vascular smooth muscle cells. J. Biol. Chem. 268: 26037-26040.
4. Timmermans, P.B., et al. 1993. Angiotensin II receptors and Angiotensin II receptor antagonists. Pharmacol. Rev. 45: 205-251.
5. Marrero, M.B., et al. 1994. Angiotensin II stimulates tyrosine phosphorylation of phospholipase C-γ 1 in vascular smooth muscle cells. J. Biol. Chem. 269: 10935-10939.
6. Schorb, W., et al. 1994. Angiotensin II-induced protein tyrosine phosphorylation in neonatal rat cardiac fibroblasts. J. Biol. Chem. 269: 19626-19632.
7. Marrero, M.B., et al. 1995. Direct stimulation of Jak/STAT pathway by the Angiotensin II AT_1 receptor. Nature 375: 247-250.

CHROMOSOMAL LOCATION

Genetic locus: AGTR1 (human) mapping to 3q25.

PRODUCT

AT_1 (h3): 293T Lysate represents a lysate of human AT_1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

AT_1 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive AT_1 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.

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.