

Store at +4C  
#7270**PathScan® Total c-Jun Sandwich ELISA Kit**

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**UniProt ID:** #P05412  
**Entrez-Gene Id:** #3725

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Product Includes	Product #	Quantity	Color	Storage Temp
TMB Substrate	7004	11 ml	Colorless	+4C
STOP Solution	7002	11 ml	Colorless	+4C
Sealing Tape	54503	2 ea		+4C
ELISA Wash Buffer (20X)	9801	25 ml	Colorless	+4C
Cell Lysis Buffer (10X)	9803	15 ml	Yellowish	-20C

Kit contents scale proportionally with size, except sealing tape.

Example: The V1 kit contains 5X the listed quantities above, but will exclude the sealing tape.

The microwell plate is supplied as 12 8-well modules - Each module is designed to break apart for 8 tests.

## Description

CST's PathScan® Total c-Jun Sandwich ELISA Kit is a solid phase sandwich enzyme-linked immunosorbent assay (ELISA) that detects endogenous levels of total c-Jun protein. A c-Jun rabbit monoclonal antibody(6H5\*) has been coated onto the microwells. After incubation with cell lysates, c-Jun proteins are captured by the coated antibody. Following extensive washing, c-Jun (6A3\*) mouse monoclonal antibody is added to detect the captured c-Jun protein. HRP-linked anti-mouse antibody (#7076\*) is then used to recognize the bound detection antibody. HRP substrate, TMB, is added to develop color. The magnitude of optical density for this developed color is proportional to the quantity of total c-Jun protein.

\* Antibodies in kit are custom formulations specific to kit.

## Specificity/Sensitivity

CST's PathScan® Total c-Jun Sandwich ELISA Kit detects endogenous levels of total c-Jun protein. Using PathScan® Phospho-c-Jun (Ser63) Sandwich ELISA Kit #7260, a significant induction of phospho-c-Jun (Ser63) in 293 cells treated with UV light is detected. However, the level of total c-Jun, detected by this Sandwich ELISA Kit #7270, remains unchanged (figure 1). Both C6 and NIH/3T3 cells treated either UV light or anisomycin show similar results (data not shown). This kit detects proteins from the indicated species, as determined through in-house testing, but may also detect homologous proteins from other species.

## Background

c-Jun is a member of the Jun family containing c-Jun, JunB, and JunD, and is a component of the transcription factor activator protein-1 (AP-1). AP-1 is composed of dimers of Fos, Jun, and ATF family members and binds to and activates transcription at TRE/AP-1 elements (reviewed in 1). Extracellular signals, including growth factors, chemokines, and stress, activate AP-1-dependent transcription. The transcriptional activity of c-Jun is regulated by phosphorylation at Ser63 and Ser73 through SAPK/JNK (reviewed in 2). Knockout studies in mice have shown that c-Jun is essential for embryogenesis (3), and subsequent studies have demonstrated roles for c-Jun in various tissues and developmental processes, including axon regeneration (4), liver regeneration (5), and T cell development (6). AP-1 regulated genes exert diverse biological functions, including cell proliferation, differentiation, and apoptosis, as well as transformation, invasion and metastasis, depending on cell type and context (7-9). Other target genes regulate survival, as well as hypoxia and angiogenesis (8,10). Research studies have implicated c-Jun as a promising therapeutic target for cancer, vascular remodeling, acute inflammation, and rheumatoid arthritis (11,12).

## Background References

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Revision 2

# #7270

## PathScan<sup>®</sup> Total c-Jun Sandwich ELISA Kit

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