

# Product Information



## Prostaglandin E Synthase (Cytosolic) Monoclonal Antibody (Clone JJ6)

Item No. 18219

<b>Contents:</b>	This vial contains protein G affinity-purified mouse IgG at a concentration of 1 mg/ml in PBS, pH 7.2, containing 0.09% sodium azide and 50% glycerol.
<b>Synonyms:</b>	cPGES, cPGE Synthase, Hsp90 Co-chaperone, p23, Telomerase-binding protein p23
<b>Antigen:</b>	Recombinant human full length p23 protein
<b>Isotype:</b>	IgG <sub>1</sub>
<b>Host:</b>	Mouse, clone JJ6
<b>Cross Reactivity:</b>	(+) Human, mouse, rabbit, chicken, guinea pig, and <i>S. cerevisiae</i> (lower) p23.
<b>Stability:</b>	≥1 year at -20°C
<b>Applications:</b>	Western blot (WB), immunoprecipitation, and ELISA. The recommended starting dilution for WB is 1:2,000 (0.5 µg/ml). The optimal working dilutions for other applications should be determined empirically.

p23 is a highly conserved ubiquitous protein, known to have an important function as a co-chaperone for the Hsp90 chaperoning system.<sup>1</sup> Studies have revealed that p23 is a small protein (18-25 kDa) with a simple structure.<sup>2,3</sup> p23 does not have any structural homology with any other known proteins.<sup>1</sup> p23 was first discovered as a part of the Hsp90-progesterone receptor complex along with Hsp70, p54, and p50.<sup>1</sup> p23 is a phospho-protein, which is highly acidic and has an aspartic acid-rich C-terminal domain.<sup>1</sup> Numerous studies have found p23 to be associated with other client proteins like Fes tyrosine kinase<sup>4</sup>, the heme-regulated kinase HRI<sup>5</sup>, Hsf1 transcription factor<sup>4</sup>, aryl hydrocarbon receptor<sup>4</sup>, telomerase<sup>6</sup>, and Hepadnavirus reverse transcriptase.<sup>7</sup> In spite of several years of study, the exact functional significance of p23 is still not clear. p23 is identical to cytosolic prostaglandin E synthase (cPGES), converting PGH<sub>2</sub> to PGE<sub>2</sub> downstream of COX-1.<sup>9</sup> p23 is also thought to be involved in the adenosine triphosphate-mediated Hsp90 binding of client proteins.<sup>8</sup> Since many Hsp90 client proteins are involved in oncogenic survival signaling, a recent study has concluded p23 to be a promising target in leukemic apoptosis.<sup>10</sup> Hsp90 and its co-chaperone p23 are certainly among the emerging anti-tumor targets in oncology.

### References

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