DATASHEET

ACE-inhibitor compliance & AcSDKP ELISA kit

ACE-inhibitor compliance & AcSDKP ELISA kit #A05881

- ACE-inhibitors compliance
- Biomarker of Prolyl Oligopeptidase (POP) activity
- Simple measurement with an ELISA kit

The tetrapeptide N-acetyl-seryl-aspartyl-lysyl-proline (AcSDKP) was first discovered thanks to its endogenous regulatory function in hematopoiesis which reverses stem cells and normal early progenitors into S-phase.

Next, further studies demonstrate its role as a biomarker of ACE inhibition, of particular usefulness in clinical trials when ACE is prescribed.

Nowadays, the main research focuses on its preventive role in fibrosis (in the heart, kidney, or liver), as demonstrated by the recent works of several teams. As AcSDKP is produced by the action of Prolyl oligopeptidase (POP) from thymosin-β4, POP becomes a new drug target for fibrosis treatment, in the context of growing concern around NASH/NAFLD.

FOCUS ON THE ASSAY

The principle of this Enzyme ImmunoAssay (ELISA):

A specific monoclonal anti-Rabbit IgG is immobilized on a 96-well plate to fix the AcSDKP antiserum added into the well. AcSDKP free (from sample or standard) or AcSDKP tracer (labeled with acetylcholinesterase AChE) are added together into the well and compete to bind the antisera. After washing, the AChE-labelled tracer can react with Ellman's reagent (enzymatic substrate for AChE and chromogen) to form a yellow compound.

The coloration is inversely proportional to the concentration of free AcSDKP.

BERTIN TECHNOLOGIES
10Bis Avenue Ampère
78180 Montigny le Bretonneux
France
www.bertin-technologies.com

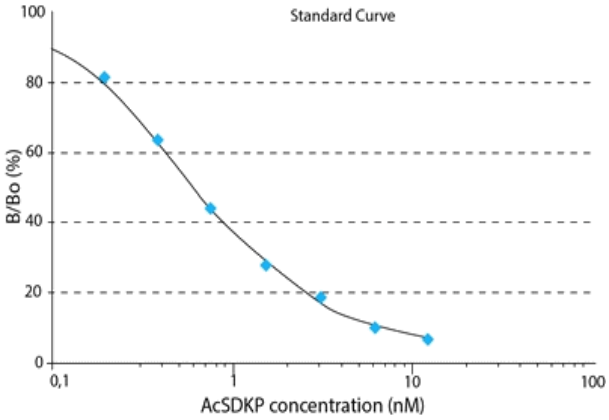
DATASHEET

ACE-inhibitor compliance & AcSDKP ELISA kit

TECHNICAL DATA

- Format: Competitive EIA
- Stability: 18 months
- Storage: -20°C
- Shipping: Dry ice
- Size: 96 wells
- Tracer label: AChE ®
- Sample volume: 50µL
- Limit of detection: 0.1 nM
- Plasma: Long immunological reaction (18H 4°C) 0,09-12,5 nM
- Standard curve range: short immunological reaction « 3H RT): 0.19-25 nM
- Media application: Plasma, urine & blood cells

- Preanalytical phase:
  - Blood collection with captopril
  - Plasma/Serum: purification using methanol precipitation. Blood cells: methanol precipitation.
  - Urine: no extraction is required



AcSDOP	500 %	Thymosin β4	<0.02 %
AcSDKP	100 %	AcSDK	<0.03 %
AcSDRP	100 %	AcSDKPDC	<0.01 %
AcADKP	6 %	TNFα	<0.01 %
SDKP	0.5 %	AcSDKPY	<0.01%

REFERENCES

- **16. Kumar N., Nakagawa P., JanicB., Romero CA., Worou ME., Monu SR., Peterson EL., Shaw L., Valeriote F., Ongeri EM., Niyitegeka JMV., Rhaleb NE., and Carretero OA.**
- **Zhou D., Wang J., HE L.N. et al.** The anti-inflammatory peptide Ac-SDKP is released from thymosin-β4 by renal meprin-α and prolyl oligopeptidase.
  Am J Physiol Renal Physiol 310: F1026–F1034 (2016)
- **17. Zhou D., Wang J., HE L.N. et al.**
  Prolyl oligopeptidase attenuates hepatic stellate cell activation through the induction of Smad7 and PPAR-γ.
  Experimental and Therapeutic Medicine, 13, 780-786 (2017)

RELATED PRODUCT

- Rat Albumim EIA kit cat #A05102
- Rat Atriopeptin EIA kit cat #A05103
- Angiotensin II EIA kit cat #A05880

BERTIN TECHNOLOGIES
10Bis Avenue Ampère
78180 Montigny le Bretonneux
France
www.bertin-technologies.com

www.bertin-bioreagent.com
www.bertin-corp.com (US webstore)