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Product Information

SARS-CoV2 Main protease chromogenic substrate peptide

Catalog Number: **SAE0181**
Storage Temperature –20 °C

Synonym: Thr-Ser-Ala-Val-Leu-Gln-pNA

Product Description
This hexapeptide is a substrate peptide for the Main protease (Mpro) from the SARS coronavirus[1,2] and also that of SARS-Cov2.[,3] This substrate allows measurement of the activity of Mpro, using a standard plate reader or spectrophotometer. Proteolytic cleavage by Mpro will release the free pNA group from the peptide, with a maximum absorption peak at 405 nm ($A405_{1uM}$ = 0.00916):

↓
Thr-Ser-Ala-Val-Leu-Gln-pNA

This product is lyophilized from 0.1% TFA in H_2O.

Precautions and Disclaimer
For Research use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
The product is stable in lyophilized form for at least 5 years when stored at –20 °C. This product has a limited lifetime in solution. Long-term storage in solution should be avoided.

Procedure
Solubilization:
The peptide is soluble in water at a concentration of 20 mg/mL, or in DMSO at a concentration of 20-50 mg/mL.

Working concentration:
Peptide: suggested working concentration of 200 μg/mL.

Mpro: we recommend using Mpro (Catalog Number SAE0172) at a working concentration of 2-20 μg/mL.

Assay buffer: Mpro protease is active under a wide variety of conditions and temperatures. However, we strongly advise against use of Tris-based buffers, because of their interactions with the given substrate.

Recommended assay buffer: 25 mM HEPES buffer, pH 7.0, 0.2% Tween-20.

Reaction temperature: 0 - 30 °C

The reaction can be stopped by addition of acetic acid to a final concentration of 2%.

References
1. Liu, P. *et al*., *Eur. J. Med. Chem.*, **206**, 112702 (2020).
2. Liu, Z. *et al.*, *J. Chem. Inf. Model.*, **45(1)**, 10-17 (2005).
3. Li, C. *et al*., *J. Biol. Chem*., **285(36)**, 28134-28140 (2010).

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DT,EV,HE,LB,GCY,SBC-12/20-1