Product Data Sheet

PAD2-IN-1 hydrochloride

Molecular Weight: 517

Target: Protein Arginine Deiminase

Pathway: Epigenetics

Storage: 4°C, sealed storage, away from moisture and light

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture

and light)

BIOLOGICAL ACTIVITY

Description	PAD2-IN-1 hydrochloride, a benzimidazole-based derivative, is a potent and selective protein arginine deiminase 2 (PAD2) inhibitor. PAD2-IN-1 hydrochloride shows superior selectivity for PAD2 over PAD4 (95-fold) and PAD3 (79-fold) ^[1] .
IC ₅₀ & Target	Protein Arginine Deiminase 2 (PAD2) ^[1]
In Vitro	In the target engagement assay, the EC $_{50}$ of PAD2-IN-1 (compound 32a) hydrochloride is 8.3 μ M in HEK293T/PAD2 cells, the enhanced potency of PAD2-IN-1 overcomes its relatively poor ability to enter cells ^[1] . PAD2-IN-1 (compound 32a; 1-25 μ M) hydrochloride treatment strongly inhibits histone H3 citrullination with an EC $_{50}$ of 2.7 μ M in HEK293T/PAD2 cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

• Front Immunol. 01 December 2021.

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REFERENCES

 $[1]. A aron \, \text{Muth, et al. Development of a Selective Inhibitor of Protein Arginine Deiminase} \, 2. \, \text{J Med Chem. 2017 Apr 13;60(7):3198-3211}.$

Caution: Product has not been fully validated for medical applications. For research use only.

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