

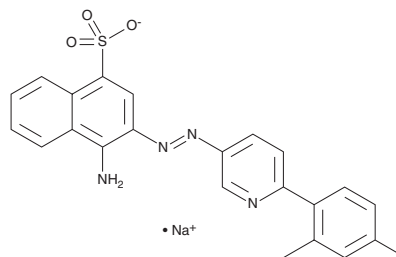
# PRODUCT INFORMATION



## KUS121

Item No. 30297

**CAS Registry No.:** 1357164-52-3  
**Formal Name:** 4-amino-3-[2-[6-(4-fluoro-2-methylphenyl)-3-pyridinyl]diazanyl]-1-naphthalenesulfonic acid, monosodium salt  
**MF:** C<sub>22</sub>H<sub>16</sub>FN<sub>4</sub>O<sub>3</sub>S • Na  
**FW:** 458.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 234, 324, 484 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

KUS121 is supplied as a crystalline solid. A stock solution may be made by dissolving the KUS121 in the solvent of choice, which should be purged with an inert gas. KUS121 is soluble in the organic solvent DMSO.

### Description

KUS121 is a valosin-containing protein (VCP) modulator that inhibits VCP ATPase activity (IC<sub>50</sub> = 330 nM).<sup>1</sup> It inhibits cell death, ATP depletion, and upregulation of C/EBP-homologous protein (CHOP) induced by tunicamycin, an inducer of ER stress, in HeLa cells when used at concentrations of 20, 50, and 50 μM, respectively. KUS121 (100 μM) inhibits ATP depletion and cell death induced by oxygen-glucose deprivation (OGD) in rat primary cortical neurons in an *in vitro* model of cerebral ischemia.<sup>2</sup> It reduces infarction volume and increases the latency to fall in an accelerating rotarod test in a mouse model of focal cerebral ischemia induced by transient distal middle cerebral artery occlusion (MCAO) when administered at a dose of 100 mg/kg immediately following occlusion and again at 50 mg/kg following reperfusion. KUS121 (50 mg/kg) inhibits thinning of the retinal outer nuclear layer and preserves visual function in an rd10 mouse model of retinitis pigmentosa.<sup>1</sup>

### References

- Ikeda, H.O., Sasaoka, N., Koike, M., *et al.* Novel VCP modulators mitigate major pathologies of rd10, a mouse model of retinitis pigmentosa. *Sci. Rep.* **4**, 5970 (2014).
- Kinoshita, H., Maki, T., Yasuda, K., *et al.* KUS121, a valosin-containing protein modulator, attenuates ischemic stroke via preventing ATP depletion. *Sci. Rep.* **9**(1), 11519 (2019).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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