

## Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
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- Expressversand

#### SZABO-SCANDIC HandelsgmbH

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# **PRODUCT** INFORMATION



FG-7142

Item No. 29183

CAS Registry No.: Formal Name:	78538-74-6 N-methyl-9H-pyrido[3,4-b]indole- 3-carboxamide
Synonym:	ZK 39106
MF:	C <sub>13</sub> H <sub>11</sub> N <sub>3</sub> O
FW:	225.2 (/ \)(\(\)
Purity:	≥98%
UV/Vis.:	λ <sub>max</sub> : 217, 235, 271 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years
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Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

#### Laboratory Procedures

FG-7142 is supplied as a crystalline solid. A stock solution may be made by dissolving the FG-7142 in the solvent of choice, which should be purged with an inert gas. FG-7142 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of FG-7142 in ethanol is approximately 1 mg/ml and approximately 20 mg/ml in DMSO and DMF.

FG-7142 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, FG-7142 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. FG-7142 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

#### Description

FG-7142 is a benzodiazepine receptor ligand with anxiogenic and proconvulsant properties.<sup>1</sup> It increases benzodiazepine receptor ligand binding and GABA-dependent chloride uptake in primary chick cerebral cortical neurons when used at a concentration of 1  $\mu$ M. FG-7142 (5 mg/kg) decreases pinning of the other animal and increases avoiding behavior in rats, an effect that can be prevented by the benzodiazepine receptor antagonist Ro 15-1788 (flumazenil; Item No. 14252).<sup>2</sup> It reduces the infused pentylenetetrazol (PTZ; Item No. 18682) seizure threshold and induces generalized seizures in mice when administered at doses of 10 and 40 mg/kg, respectively.<sup>3</sup> FG-7142 (3.75, 7.5, and 15 mg/kg, i.p.) also decreases food and water intake, eating rate, and time spent in the open arms of the elevated plus maze in female rats.<sup>4</sup>

#### References

- 1. Miller, L.G., Heller, J., Lumpkin, M., et al. Augmentation of GABAA receptor function by chronic exposure to GABA-neutral and GABA-negative benzodiazepine ligands in cultured cortical neurons. Biochem. Pharmacol. 40(6), 1337-1344 (1990).
- 2. Beck, C.H. and Cooper, S.J.  $\beta$ -Carboline FG 7142-reduced aggression in male rats: Reversed by the benzodiazepine receptor antagonist, Ro15-1788. Pharmacol. Biochem. Behav. 24(6), 1645-1649 (1986).
- Little, H.J., Nutt, D.J., and Taylor, S.C. Acute and chronic effects of the benzodiazepine receptor ligand 3 FG 7142: Proconvulsant properties and kindling. Br. J. Pharmacol. 83(4), 951-958 (1984).
- 4. Cottone, P., Sabino, V., Steardo, L., et al. FG 7142 specifically reduces meal size and the rate and regularity of sustained feeding in female rats: Evidence that benzodiazepine inverse agonists reduce food palatability. Neuropsychopharmacology 32(5), 1069-1081 (2007).

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

#### SAFFTY 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.

#### WARRANTY AND LIMITATION OF REMEDY

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