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Product Datasheet

RS-1, CAS [[312756-74-4]]

FBM-10-4099

Article Name	RS-1, CAS [[312756-74-4]]
Biozol Catalog Number	FBM-10-4099
Supplier Catalog Number	10-4099
Alternative Catalog Number	FBM-10-4099-10MG, FBM-10-4099-50MG
Manufacturer	Focus Biomolecules
Category	Biochemikalien
Product Description	RAD51 activator/CRISPR enhancer...
Molecular Weight	524.23
Purity	99% by HPLC, NMR (Conforms)
Form	White solid
CAS Number	[312756-74-4]
Formula	C ₂₀ H ₁₆ Br ₂ N ₂ O ₃ S

Application Notes

RAD51 is a strand exchange protein that is critical for the central steps in homologous recombination (HR) of DNA during double strand break repair. Because HR usually occurs without mutations, it is critically important for maintaining genomic stability. RS-1 is a small molecule that enhances the HR activity of RAD51 by promoting the formation of active presynaptic filaments during repair.¹ At low micromolar levels, it was able to increase cellular resistance of neonatal human dermal fibroblasts to the chemotherapeutic agent cisplatin. HR stimulation in various cell types could lead to temporary protection from DNA damaging agents. RS-1 has been used to exploit the RAD51 overexpression in cancerous cells by inducing lethality via genotoxic RAD51 protein complexes.² RS-1 has also been found to a potent enhancer of CRISPR- and TALEN- based gene editing.^{3,4}