

Tetracycline HCl, 25g**PG-400T-25g**

Tetracycline Hydrochloride is a broad-spectrum tetracycline antibiotic widely used in microbiology, molecular biology, cell culture, and genetic research applications. It inhibits bacterial protein synthesis by binding to the 30S ribosomal subunit and is commonly used as a selective agent in cloning vectors, bacterial culture systems, and inducible gene expression studies.

Parameter	Specification
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Product Name	Tetracycline Hydrochloride
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Synonym	Tetracycline HCl
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Molecular Formula	$C_{22}H_{24}N_2O_8 \cdot HCl$
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Molecular Weight	480.90 g/mol
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Appearance	Yellow crystalline powder
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Assay	$\geq 95\%$
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Solubility	Soluble in water, methanol, ethanol, and DMSO
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CAS Number	64-75-5
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pH (1% Solution)	2.0–3.5
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Loss on Drying	$\leq 2.0\%$
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Applications:	Antibiotic selection in bacterial cloning experiments etc.
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Safety

Harmful if inhaled, swallowed, or absorbed through skin. Suspected carcinogen. May cause liver, kidney, and central nervous system damage following prolonged or repeated exposure. Use in a well-ventilated area and wear appropriate PPE including gloves, lab coat, and safety goggles. Avoid contact with skin, eyes, and clothing. Store away from heat and incompatible materials.