

**IPTG****PG-7840-10G**

IPTG (Isopropyl  $\beta$ -D-1-thiogalactopyranoside) is a molecular biology reagent used to induce gene expression in systems controlled by the lac operon. It acts as a lactose analog and is commonly used in recombinant protein production and bacterial expression studies. It is not metabolized by cells, making it a stable and effective inducer.

| <b>Parameter</b>           | <b>Details</b>   |
|----------------------------|--|
| <b>Product Name</b>        | IPTG   |
| <b>Formula</b>             | $C_9H_{18}O_5S$  |
| <b>Concentration</b>       | Not applicable   |
| <b>Description</b>         | Molecular biology reagent used as a lactose analog to induce gene expression   |
| <b>Appearance</b>          | White crystalline powder   |
| <b>Molecular Weight</b>    | 238.30 g/mol   |
| <b>Solubility</b>          | Soluble in water   |
| <b>pH (1% Solution)</b>    | 5.0 – 7.0  |
| <b>CAS Number</b>          | 367-93-1   |
| <b>Storage Condition</b>   | Store at $-20^{\circ}C$ , tightly closed and protected from moisture re  |
| <b>Applications / Uses</b> | Used for induction of protein expression in lac operon systems, recombinant protein production, and molecular biology research |

**Safety**

For research use only. Avoid inhalation and contact with skin or eyes. Wear appropriate PPE. Store at  $-20^{\circ}C$