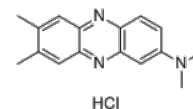


**Product Name** : Neutral Red  
**Cat. No.** : PC-20480  
**CAS No.** : 553-24-2  
**Molecular Formula** : C<sub>15</sub>H<sub>16</sub>N<sub>4</sub>.ClH  
**Molecular Weight** : 288.78  
**Target** : Deubiquitinase (DUB)  
**Solubility** : 10 mM in DMSO



### Biological Activity

Neutral Red is a nitrogenous **pH-indicator** that can stains lysosomes red, also is a selective, uncompetitive **USP4** inhibitor with IC<sub>50</sub> of 50 uM.

Neutral Red displays no effective activity on other DUBs (YOD1, USP5, UCHL1, and USP14).

Neutral Red inhibited the deubiquitinating activity of USP4 in colon cancer cells.

Neutral Red affected the protein stability of  $\beta$ -catenin, and the target genes expression of  $\beta$ -catenin.

Neutral Red significantly reduced colony formation and cell migration, reduced the tumor volume in mouse xenograft models.

### References

Nguyen HH, et al. *Cell Physiol Biochem*. 2019;53(1):157-171.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

E-mail: tech@probechem.com