

**7- Compounds free of carboxylic group: celecoxib, valdicoxib.**

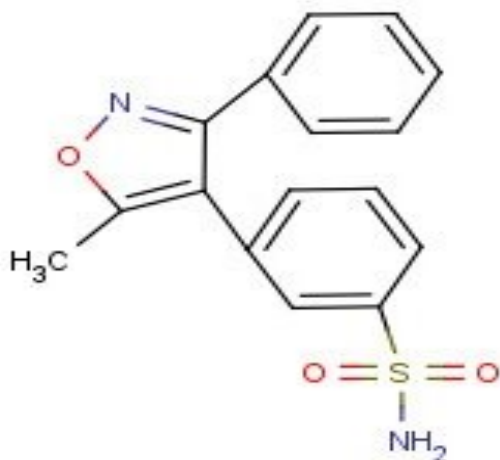


Figure 1.17: 4-(5-methyl-3-phenylisoxazol-4-yl) benzenesulfonamide (valdecoxib)

Coxib drugs are with potent anti-inflammatory and analgesic activity.

The structural features that lead to selectivity are 1, 2 diarylsubstitution on a central hetero or carbocyclic ring system with a characteristic methanesulfonyl, sulfonamide, azido, methanesulfonamide, or tetrazole pharmacophore group on one of the aryl rings that plays an important role in COX-2 selectivity.( Zarghi 2011) (Fig. 1.17).

COX-2 inhibitor under normal condition expressed in GI tract at undetectable level, but this expression rises significantly in the presence of colorectal malignancies, COX-2 role and angiogenesis are under investigation, prolong use of coxibs are associated with cardiovascular problems.