

Cell Membrane Phospholipid: Second Messenger System

- Hormone binds to the receptor and activates G protein
- G protein binds and activates a phospholipase enzyme
- Phospholipase splits the phospholipid PIP_2 into diacylglycerol (DAG) and IP_3 (both act as second messengers)
- DAG activates protein kinases; IP_3 triggers release of Ca^{2+} stores
- Ca^{2+} (third messenger) alters cellular responses