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Report

Ls What genes interact with the drug Ibrutinib and by what mechanism of interaction according to DGIdb?

`get_gene_interactions_for_drug_list`

According to DGIdb, **Ibrutinib** interacts with multiple genes. Here are the top interactions ranked by interaction score:

Primary Target

Gene	Interaction Type	Direction	Score	Sources
BTK	Inhibitor	Inhibitory	0.38	CGI , CIViC , PharmGKB , ChEMBL , and others

BTK (Bruton's Tyrosine Kinase) is the **primary therapeutic target** of ibrutinib. The drug acts as an irreversible inhibitor, blocking BTK's enzymatic activity. Supporting publications: [PMID: 25222877](#), [PMID: 24869598](#), [PMID: 27199251](#)

Resistance/Response Biomarkers

Gene	Score	Sources
PLCG2	4.61	CGI , DoCM — PMID: 24869598
MYD88	1.54	CGI , CIViC , PharmGKB

PLCG2 and MYD88 are associated with ibrutinib resistance or response prediction rather than being direct drug targets.

Additional Inhibitory Targets

Gene	Interaction Type	Score	Source
ENUR2	Inhibitor	0.31	Guide to Pharmacology
BMX	Not specified	0.26	TTD
TEC	Inhibitor	0.11	Guide to Pharmacology
EPHA8	Inhibitor	0.11	Guide to Pharmacology

Gene	Interaction Type	Score	Source
EFNA1	Inhibitor	0.14	Guide to Pharmacology
EPS15	Inhibitor	0.13	Guide to Pharmacology

Ibrutinib is known to have off-target kinase inhibition beyond BTK, which may contribute to both efficacy and side effects.

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