

Mangalaparthy *et al.*, 2020. Mutational landscape of esophageal squamous cell carcinoma in an Indian cohort
Supplementary Table 9. List of identified genes with an available FDA-approved anti-neoplastic drug using
DGIdb resource

Gene	Drug	Interaction_types	Sources	PMIDs
<i>FGF3</i>	SORAFENIB		CIViC	22890726
<i>FOLR1</i>	DEXAMETHASONE		NCI	15899836
<i>P2RY2</i>	TRETINOIN		NCI	18404486
<i>CCNE1</i>	PALBOCICLIB		CIViC	27020857
<i>HTR3E</i>	GRANISETRON		TdgClinicalTrial	
<i>PSMD2</i>	CARFILZOMIB	inhibitor	MyCancerGenome ChEMBLInteractions	
<i>PSMD2</i>	BORTEZOMIB	inhibitor	MyCancerGenome TdgClinicalTrial ChEMBLInteractions TEND	
<i>EPHB3</i>	VANDETANIB	inhibitor	ChEMBLInteractions	
<i>HTR3D</i>	GRANISETRON		TdgClinicalTrial	
<i>ABCC5</i>	FLUOROURACIL		PharmGKB	
<i>HTR3C</i>	GRANISETRON		TdgClinicalTrial	
<i>ETV5</i>	TRAMETINIB		CIViC	28178529
<i>GPR87</i>	CYCLOPHOSPHAMIDE	antagonist	GuideToPharmacologyInteractions	
<i>TERC</i>	IFOSFAMIDE		NCI	10769656
<i>NLGN1</i>	FLUOROURACIL		PharmGKB	
<i>TNK2</i>	BOSUTINIB	inhibitor	GuideToPharmacologyInteractions	
<i>HES1</i>	TRETINOIN		NCI	12080040
<i>BCHE</i>	IRINOTECAN		NCI	11345644
<i>PLD1</i>	TAMOXIFEN		NCI	12237338
<i>SLC2A2</i>	STREPTOZOTOCIN	ligand	DrugBank	9421374 7926307
<i>RARRES1</i>	TRETINOIN	agonist	TEND DrugBank	15897880 15059893
<i>AGTR1</i>	DEXAMETHASONE		NCI	16482568
<i>ATR</i>	OLAPARIB		ClarityFoundationBiomarkers CGI	
<i>ATR</i>	NIRAPARIB		ClarityFoundationBiomarkers	
<i>ATR</i>	RUCAPARIB		ClarityFoundationBiomarkers	
<i>ATR</i>	TEMOZOLOMIDE		CGI	
<i>PRKAA1</i>	ASPIRIN	activator	DrugBank	22517326 22406476
<i>PRKAA1</i>	PENTOSTATIN		NCI	11969266
<i>PRKAA1</i>	STREPTOZOTOCIN		NCI	15616011
<i>PRKAA1</i>	SIROLIMUS		NCI	16027121

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<i>PRKAA1</i>	METFORMIN HYDROCHLORIDE		ClarityFoundationClinicalTrial	
<i>PTGER4</i>	ILOPROST	agonist	GuideToPharmacologyInteractions	
<i>PTGER4</i>	IBUPROFEN		NCI	9118476
<i>PTGER4</i>	STREPTOZOTOCIN		NCI	16954344
<i>SLC6A3</i>	PHENMETRAZINE	inhibitor	TdgClinicalTrial TEND DrugBank	12106802 17139284 17016423 17017961
<i>SLC6A3</i>	METHYLPHENIDATE	inhibitor blocker	TdgClinicalTrial GuideToPharmacologyInteractions ChEMBLInteractions NCI TEND TTD	15572278 12699766 15827573
<i>TERT</i>	BEVACIZUMAB		NCI	15687494
<i>TERT</i>	ARSENIC TRIOXIDE		NCI	16285558
<i>TERT</i>	OMACETAXINE MEPESUCCINATE		NCI	12744738
<i>MYC</i>	PREDNISONE		NCI	11911117
<i>MYC</i>	IMATINIB		NCI	15517875
<i>MYC</i>	VORINOSTAT		NCI	15583844
<i>MYC</i>	SULINDAC		NCI	12414619
<i>MYC</i>	TEMOZOLOMIDE		CGI	
<i>MYC</i>	THIOGUANINE		NCI	1988936
<i>MYC</i>	VERAPAMIL		NCI	1511424
<i>MYC</i>	AZACITIDINE		NCI	9006118
<i>MYC</i>	CALCITRIOL		NCI	8490200 15598784
<i>GPT</i>	TACROLIMUS		NCI	9825815
<i>PVT1</i>	IMATINIB MESYLATE		NCI	15251464
<i>TP53</i>	ASPIRIN	acetylation	DrugBank	21475861
<i>TP53</i>	BORTEZOMIB	inhibitor	TALC	
<i>TP53</i>	EPIRUBICIN		CKB	17388661 22903472
<i>TP53</i>	DECITABINE		CGI	
<i>TP53</i>	IRINOTECAN		CKB	25567130
<i>TP53</i>	TRAMETINIB		CKB	27659046
<i>TP53</i>	CYCLOPHOSPHAMIDE		CKB	17388661 16243804 26438783
<i>TP53</i>	ETOPOSIDE		CKB	25964101

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Gene	Drug	Interaction_types	Sources	PMIDs
TP53	VEMURAFENIB		CKB	26343583 28514312
TP53	PANITUMUMAB		CKB	28514312
TP53	INTERFERON ALFA-2B		NCI	16001656
TP53	GRANISETRON		ClarityFoundationClinicalTrial	
TP53	SIROLIMUS		CKB NCI	26144316 16651424
TP53	PACLITAXEL		PharmGKB CKB NCI	16459017
TP53	OLAPARIB		CKB	22172724
TP53	PAZOPANIB		CKB	26646755 25669829
TP53	BEVACIZUMAB		CKB NCI	27466356 21399868 23670029 11720743 17145525 15579019
TP53	TOPOTECAN		CKB	26438783
TP53	CARBOPLATIN		CKB CIViC	25567130 25658463 11595686 26494859 27998224
TP53	DOCETAXEL		CKB CIViC	21399868 22425996
TP53	RITUXIMAB		NCI	11895917
TP53	DASATINIB		CKB	26855149
TP53	TRIFLURIDINE		CKB	25700705
TP53	CYTARABINE		CKB	
TP53	CETUXIMAB		CIViC	24957073
TP53	PRAMLINTIDE		CGI	
TP53	DAUNORUBICIN		CKB	16243804
TP53	THIOTEPA		NCI	12058967
TP53	IFOSFAMIDE		CKB	23165797
TP53	PEMBROLIZUMAB		CKB	28039262
TP53	MYCOPHENOLIC ACID		NCI	16684279
TP53	CAPECITABINE		CIViC	24957073
TP53	TAMOXIFEN		CIViC	10786679
TP53	VORINOSTAT		CKB	26009011 25669829
TP53	OXALIPLATIN		CKB CIViC	24957073 21468686

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Gene	Drug	Interaction_types	Sources	PMIDs
<i>TP53</i>	DABRAFENIB		CKB	27659046
<i>TP53</i>	ERLOTINIB		CKB	27659046
<i>TP53</i>	GEMCITABINE		CKB CGI	27167172 23520471 21389100 27815358 26228206
<i>TP53</i>	FLUOROURACIL		PharmGKB	
<i>TP53</i>	DOXORUBICIN		CKB CGI CIViC	25658463 21399868 16243804 23165797 26826118 22698404 9569050
<i>TP53</i>	IBRUTINIB		CKB	26563132
<i>TP53</i>	TEMOZOLOMIDE		CKB	21730979
<i>TP53</i>	MITOMYCIN		CGI	
<i>TP53</i>	CRIZOTINIB		CKB	25971938 27149990 26438783
<i>LRP1B</i>	DOXORUBICIN		CIViC	22896685
<i>NF1</i>	TRAMETINIB		ClarityFoundationBiomarkers OncoKB CGI	24576830 21245089 25243813 26936308 24583796 2524381
<i>NF1</i>	NILOTINIB		CGI	
<i>NF1</i>	EVEROLIMUS		CGI	26859683 11010 2016 17557 2015
<i>NF1</i>	IMATINIB		CGI	
<i>NF1</i>	BEVACIZUMAB		CGI	24232489 2485933
<i>NF1</i>	VINBLASTINE		CGI	
<i>NF1</i>	COBIMETINIB		ClarityFoundationBiomarkers	
<i>NF1</i>	ERLOTINIB		CGI	
<i>NF1</i>	DASATINIB		CGI	
<i>NF1</i>	PAZOPANIB		CGI	
<i>NF1</i>	VEMURAFENIB		CGI CIViC	23288408 231718
<i>NF1</i>	SORAFENIB		CGI	

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Gene	Drug	Interaction_types	Sources	PMIDs
<i>NF1</i>	TAMOXIFEN		CGI	
<i>NF1</i>	SIROLIMUS		CGI CIViC	23171796
<i>NF1</i>	DABRAFENIB		CIViC	23171796
<i>NOTCH1</i>	CYTARABINE		CKB	25104330
<i>NOTCH1</i>	PREDNISOLONE		CKB	28151717
<i>NOTCH1</i>	BORTEZOMIB		CKB	28151717
<i>NOTCH1</i>	MERCAPTOPYRINE		CKB	28151717
<i>NOTCH1</i>	EVEROLIMUS		CKB	28151717
<i>NOTCH1</i>	ASPARAGINASE		CKB	28151717
<i>NOTCH1</i>	METHOTREXATE		CKB	28151717
<i>NOTCH1</i>	TEMOZOLOMIDE		CKB	27154916
<i>NOTCH1</i>	DEXAMETHASONE		CKB	28151717
<i>NOTCH1</i>	Ribociclib		CKB	28151717
<i>NOTCH1</i>	DOCETAXEL		CKB	26202948
<i>CACNA1C</i>	VERAPAMIL	inhibitor channel blocker	TdgClinicalTrial GuideToPharmacologyInteractions TEND DrugBank	15880143 19125880 9846638 15286207
<i>EP300</i>	METHYLPHENIDATE	inhibitor	GuideToPharmacologyInteractions	
<i>FBXW7</i>	SIROLIMUS		CKB CGI CIViC	24586741 18787170 23558291
<i>FBXW7</i>	REGORAFENIB		CKB	27399335
<i>FBXW7</i>	DOCETAXEL		CKB	23274910
<i>FBXW7</i>	BELINOSTAT		CKB	23274910
<i>FBXW7</i>	VORINOSTAT		CKB	23274910
<i>FBXW7</i>	TEMSIROLIMUS		CKB	24360397
<i>IKZF1</i>	LENALIDOMIDE		CKB	24292625
<i>MUC16</i>	TOPOTECAN		NCI	17227902
<i>MUC16</i>	TAMOXIFEN		NCI	10629663
<i>MUC16</i>	DOCETAXEL		NCI	9288793 14756546
<i>MUC16</i>	ETOPOSIDE		NCI	1988893
<i>NFE2L2</i>	TAMOXIFEN		NCI	18539158
<i>NFE2L2</i>	SIROLIMUS		NCI	17652445

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<i>NFE2L2</i>	FLUTAMIDE		NCI	16055512
<i>NFE2L2</i>	BLEOMYCIN (CHEMBL3039590)		NCI	15208274
<i>NFE2L2</i>	DEXAMETHASONE		NCI	15870285
<i>NFE2L2</i>	TRETINOIN		NCI	18048326
<i>NFE2L2</i>	DOXORUBICIN		NCI	18413364
<i>PTPRB</i>	SUNITINIB		CIViC	24633157
<i>PIK3CA</i>	CANDICIDIN	inhibitor	CKB GuideToPharmacologyInteractions	26839307
				27672108 25877889 25 172762 22653967 2116 9255 23721513 232587 40 21362200 22355357 22188813 23136191 22 065080 20881279 2407 6665 24900266 245610 32 22294718 24608574 23394218 23850807 24 310736 22049316 2372 6034 23258246 261374 49 22340590 21668414 23662903 23903756 24 244612
<i>PIK3CA</i>	PHENMETRAZINE	inhibitor	OncoKB CKB GuideToPharmacologyInteractions	
<i>PIK3CA</i>	IDELALISIB	inhibitor	CKB GuideToPharmacologyInteractions CIViC	26466009 26137449

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Gene	Drug	Interaction_types	Sources	PMIDs
				27672108 25877889 25172762 22915751 23275335 22653967 23085766 21169255 23721513 25425103 21362200 22355357 22188813 27126994 23136191 22065080 20881279 24076665 24900266 24561032 24608574 23850807 24310736 22049316 22915752 23726034 24198241 23258246 22340590 27402769 23662903 23903756 24244612
<i>PIK3CA</i>	YOHIMBINE	inhibitor	OncoKB GuideToPharmacologyInteractions	
<i>PIK3CA</i>	PERTUZUMAB		CKB	23940356
<i>PIK3CA</i>	CAPECITABINE		CKB	26920887
<i>PIK3CA</i>	TAMOXIFEN		CKB	26116361
<i>PIK3CA</i>	CARBOPLATIN		CKB NCI	16275998 21216929
<i>PIK3CA</i>	CABOZANTINIB		CIViC	25242168
				24042735 16707468 15809721 25714871 21325073
<i>PIK3CA</i>	IRINOTECAN		CKB NCI	
<i>PIK3CA</i>	VENETOCLAX		CKB	27974663
<i>PIK3CA</i>	PONATINIB		CKB	26270481
				27893038 22271473 22245973 19706758 25527417 21216929 21289267 27016228
<i>PIK3CA</i>	TEMSIROLIMUS		ClarityFoundationBiomarkers CKB CIViC	
<i>PIK3CA</i>	FLOXURIDINE		CKB	25714871

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<i>PIK3CA</i>	LAPATINIB		CKB CIViC	27687302 26270481 26627007 23940356 26245675 22294718 26920887
<i>PIK3CA</i>	DOXORUBICIN		CKB NCI	16905201 27893038 12761490
<i>PIK3CA</i>	Ribociclib		OncoKB CIViC	25877889 22915751 23275335 23085766 25425103 22188813 27126994 24900266 22915752 23726034 24198241 27402769 25002028 23903756
<i>PIK3CA</i>	SIROLIMUS		CKB NCI CIViC	15647370 15878982 26882569 28514312 19029981 17376864
<i>PIK3CA</i>	COBIMETINIB		CKB	22084396
<i>PIK3CA</i>	BENZONATATE		CKB	27974663
<i>PIK3CA</i>	TOPOTECAN		CKB	21216929
<i>PIK3CA</i>	LETROZOLE		OncoKB CKB	25877889 22915751 23275335 23085766 25425103 22188813 27126994 24900266 22915752 23726034 24198241 27402769 23903756
<i>PIK3CA</i>	BORTEZOMIB		CKB	21216929

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<i>PIK3CA</i>	CETUXIMAB		CKB CGI CIViC	26715098 25714871 28446642 25724520 25838391 20619739 19223544 28424201 27002107
<i>PIK3CA</i>	PACLITAXEL		CKB NCI	26469692 24170767 12761490 26245675 21216929
<i>PIK3CA</i>	OLAPARIB		OncoKB CKB	25877889 26909613 22915751 23275335 23085766 25425103 22188813 27126994 24900266 22915752 23726034 24198241 27402769 23903756
<i>PIK3CA</i>	REGORAFENIB		CKB	23629727 25838391
<i>PIK3CA</i>	DASATINIB		CKB	26855149
<i>PIK3CA</i>	BEVACIZUMAB		CKB	27893038 23940356 21216929 25363205
<i>PIK3CA</i>	VINCRISTINE		NCI	12874004
<i>PIK3CA</i>	EVEROLIMUS		ClarityFoundationBiomarkers OncoKB CKB CGI CIViC	25877889 26951309 23629727 27797976 22915751 23275335 20664174 20664172 23085766 25425103 27893038 22188813 27126994 24900266 21358673 27091708 22915752 23726034 22662154 24198241 27402769 23903756

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<i>PIK3CA</i>	SULINDAC		NCI	12654560
				25877889 17936563 22915751 23275335 21676217 24470511 27687302 23085766 25425103 26469692 22188813 27126994 28167203 24900266 23940356 20453058 26245675 22294718 22915752 23726034 21558396 24198241 27402769 23903756
<i>PIK3CA</i>	TRASTUZUMAB		OncoKB CKB CGI CIViC	
<i>PIK3CA</i>	METFORMIN		CKB	23986086
<i>PIK3CA</i>	DABRAFENIB		CKB	27797976
<i>PIK3CA</i>	FLUOROURACIL		CKB	25714871 22336586 28424201
<i>PIK3CA</i>	SORAFENIB		CKB	23629727 25363205
<i>PIK3CA</i>	GEMCITABINE		CKB	28750271
<i>PIK3CA</i>	PANITUMUMAB		CIViC	19223544

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				27672108 25877889 25 172762 22653967 2717 4596 21169255 237215 13 21362200 22355357 22188813 23136191 22 065080 20881279 2407 6665 24900266 245610 32 24608574 23850807 24310736 22049316 23 726034 23258246 2234 0590 23662903 239037 56 24244612
<i>PIK3CA</i>	FULVESTRANT		OncoKB CKB	
<i>PIK3CA</i>	DOCETAXEL		PharmGKB	
<i>PIK3CA</i>	TRASTUZUMAB EMTANSINE		CKB	26920887
<i>PIK3CA</i>	VEMURAFENIB		CKB	24265153 26137449
<i>PIK3CA</i>	PALBOCICLIB		CKB CIViC	27020857 25002028 26 369631
<i>PIK3CA</i>	TRAMETINIB		CKB	27659046 27797976 26 882569 26469692 2662 7007 26369631
<i>PIK3CA</i>	STREPTOZOTOCIN		NCI	16130182