

Supplementary Materials: Dopamine D1 Receptor in Cancer

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Table S1. Summary of current data about mRNA and protein expression of type 1 dopamine receptor. Name of cell line or type of examined material is given in brackets.

Cancer Type	D1r Expression	Ref.
Acute T cell leukemia	- protein (Jurkat cells) - present	[107], [110]
Astrocytoma	protein (D384) – present	[167]
Lymphocytes B malignancies	-mRNA (DOHH2, H929, KMS11, K1106, K422, LILA OZ, PRI, RAMOS, REC-1) – present or overexpression	[168]
Cholangiocarcinoma	- mRNA (Mz-ChA-1) - overexpression - mRNA (HuCCT-1, CCLP-1) downregulation - mRNA (SG231) – present	[169]
Colon cancer	- mRNA (HCT116, HT29, RKOp, RKOr1) overexpression	[58,170]
Ependyoma	-protein (patients' samples) – overexpression in 30% cases	[171]
Gist	- protein (patients' samples) - overexpression	[171]
Glioma	- protein (patients samples) - overexpression	[103]
Hepatocellular carcinoma	- mRNA (Hep3B, patients samples) – upregulation	[58], [172]
Melanoma	- protein (patients' samples) – overexpression in less than 25% cases - lack of mRNA for D1 receptor in cell lines derived from melanoma metastases	[171,173]
Myelogenous leukemia	- protein (K562) - present	[171]
Neuroblastoma	-protein (NS20Y) - mRNA (SK-N-MC, SKNSH) - upregulation	[58,174,175]
Osteosarcoma	- protein (OS732) - present	[55]
Ovarian cancer	- protein (patients' samples) – overexpression in 50% cases	[171], [23,126]
Pancreatic cancer	- protein (SW1990, patient-derived xenografts) - upregulation	[116]
Pancreatic neuroendocrine tumor	mRNA (BON) - present	[176]
Pheochromocytoma	- protein (patients' samples) – overexpression in less than 25% cases	[171]
Renal cell cancer	- protein (patients' samples) – overexpression in 50% cases	[171]
Retinoblastoma	-protein (WERI 27)	[175]
Synovial sarcoma	-protein (patients' samples)- overexpression in 21% cases	[171]
Small cell lung carcinoma	- protein (patients' samples, patients' derived cell lines, H69) - overexpression	[113]

Table S2. Dopamine D1 receptor agonists and antagonists.

Name	Other information
Agonists	
6-Br-APB	selective D1 receptor agonist 90-fold selectivity for D ₁ over D ₂
A-68930	selective D1 receptor agonist
A-77636	selective D1 receptor agonist
A86929	selective dopamine D1 receptor agonist

	14-fold selectivity for D ₁ -like receptors over D ₂
dihydroxidine	selective dopamine D ₁ receptor agonist 10-fold selectivity for D ₁ -like receptors over D ₂
dinapsoline	selective dopamine D ₁ receptor agonist 5-fold selectivity for D ₁ -like receptors over D ₂
doxanthrine	dopamine D ₁ receptor and D ₂ receptor agonist 168-fold greater selectivity for D ₁ over D ₂ receptors
fenoldopam	highly selective peripheral D ₁ receptor partial agonist
PF-06649751	dopamine D ₁ and D ₅ receptors partial agonist
SKF89145	selective D ₁ receptor agonist
SKF89626	selective D ₁ receptor agonist
SKF38393	very high selectivity for D ₁ with negligible affinity for any other receptor
SKF81297	dopamine D ₁ and D ₅ receptors agonist 200-fold selectivity for D ₁ over any other receptor
SKF82958	dopamine D ₁ and D ₅ receptors agonist 57-fold selectivity for D ₁ over D ₂
stepholidine	D ₁ agonist and D ₂ antagonist
Antagonists	
ecipopam (SCH39166)	D ₁ and D ₅ receptors antagonist
SCH23390	D ₁ receptor agonist with minimal effect of D ₂ receptor



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