

Supplementary Materials: Identification of CNGB1 as a Predictor of Response to Neoadjuvant Chemotherapy in Muscle-Invasive Bladder Cancer

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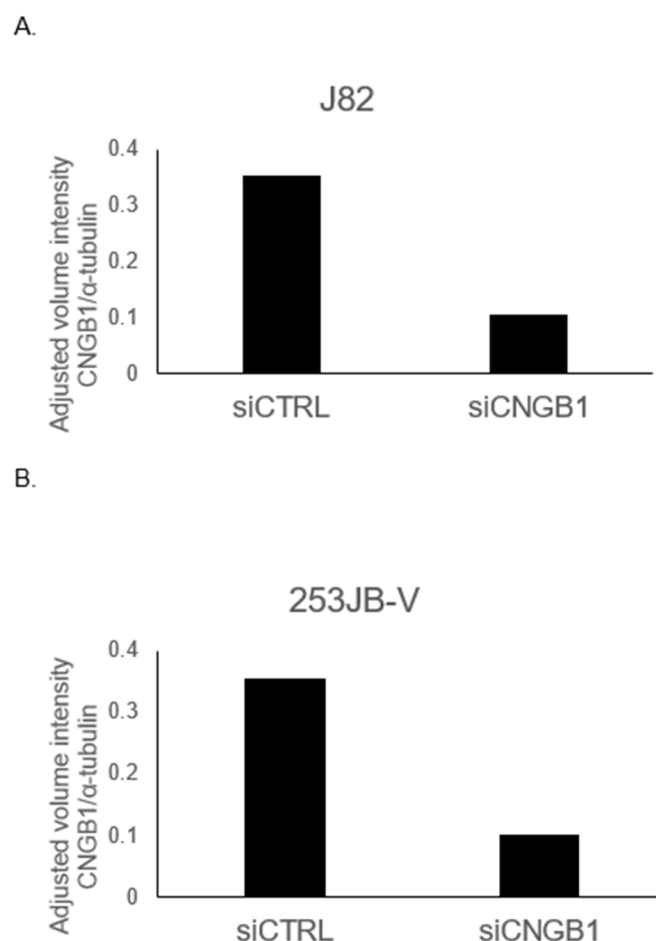


Figure S1. Densitometry analysis. Densitometry analysis performed using Image Lab software for western blots visualised with Biorad ChemiDoc.

Table S1. Full list of genes upregulated (>3-fold) in 'Responders'.

Rank	Probe ID	Gene Symbol	Gene Name	Fold Change
1	ILMN_1813490	<i>FSD1</i>	Fibronectin type III and SPRY domain containing 1	3.002926103
2	ILMN_2096031	<i>LOC283392</i>	Hypothetical protein	3.00371882
3	ILMN_2273053	<i>IL15</i>	Interleukin 15	3.046178387
4	ILMN_1746888	<i>PCOLCE2</i>	Procollagen C-endopeptidase enhancer 2	3.052867471
5	ILMN_1759652	<i>C1orf61</i>	Chromosome 1 open reading frame 61	3.11034367
6	ILMN_1703855	<i>SERPINB3</i>	Serpin family B member 3	3.12982915
7	ILMN_1737252	<i>NRG1</i>	Neuregulin 1	3.167735991
8	ILMN_1759622	<i>G3BP2</i>	G3BP stress granule assembly factor 2	3.178638308
9	ILMN_1722489	<i>TFF1</i>	Trefoil factor 1	3.208230197
10	ILMN_2119320	<i>HIST1H4F</i>	Histone cluster 1 H4 family member F	3.355192883

11	ILMN_1715169	HLA-DRB1	Major histocompatibility complex class II DR beta 1	3.687332254
12	ILMN_2165753	HLA-A29.1	Human leukocyte antigen (HLA)-A29	6.827009407
13	ILMN_2196479	XRN2	5'-3' Exoribonuclease 2	6.945393558

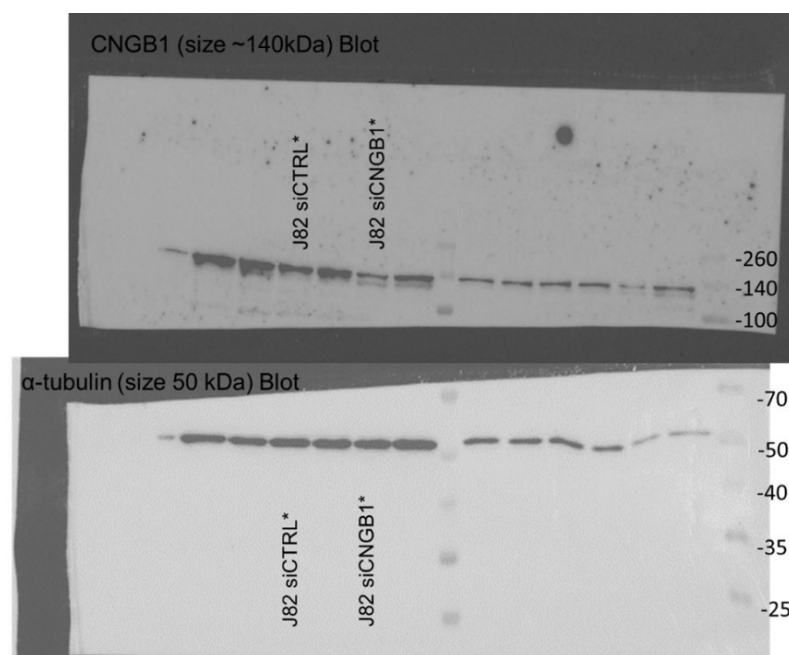
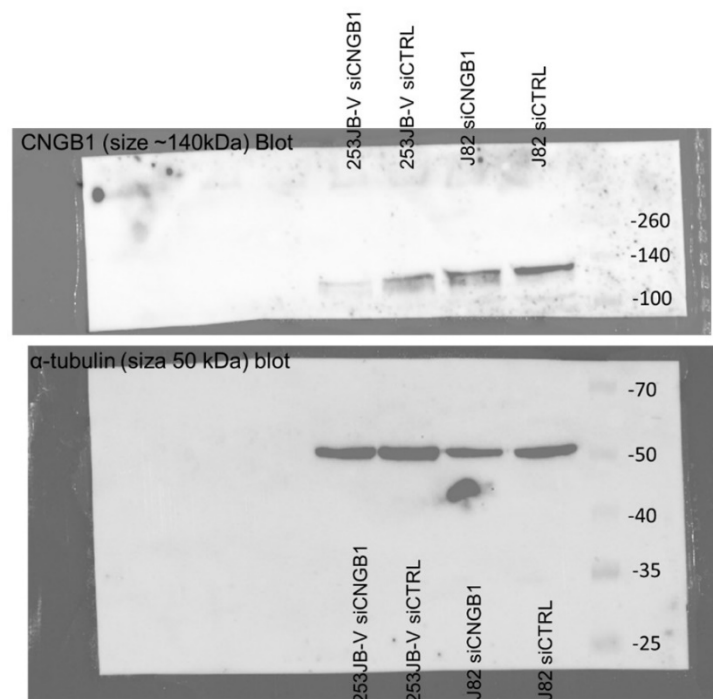
Table S2. Full list of genes upregulated (>3-fold) in 'Non-Responders'.

Rank	Probe ID	Gene Symbol	Gene Name	Fold Change
1	ILMN_3250412	CNGB1	Cyclic nucleotide gated channel beta 1	0.179950747
2	ILMN_2356578	TH	Tyrosine hydroxylase	0.211150055
3	ILMN_1804662	NRG4	Neuregulin 4	0.214592774
4	ILMN_1749118	CALML5	Calmodulin-like protein 5	0.225483892
5	ILMN_1677684	BTBD16	BTB/POZ domain-containing protein 16	0.237111786
6	ILMN_2140910	OR5P3	Olfactory receptor 5P3	0.247052675
7	ILMN_1660718	GABBR2	Gamma-aminobutyric acid type B receptor subunit 2	0.258141468
8	ILMN_1782141	GRHL3	Grainyhead-like 3	0.265609768
9	ILMN_1733333	CALML3	Calmodulin-like protein 3	0.27416442
10	ILMN_1815320	NR5A1	Nuclear receptor subfamily 5 group A member 1	0.275338343
11	ILMN_1717393	PTCHD1	Patched domain containing 1	0.277921703
12	ILMN_1687556	DAPL1	Death associated protein-like 1	0.283857875
13	ILMN_1669888	CSTA	Cystatin A	0.293359286
14	ILMN_1786353	CNGA1	Cyclic nucleotide-gated channel alpha 1	0.295413409
15	ILMN_1652366	NLRP7	NLR family pyrin domain containing protein 7	0.301105822
16	ILMN_1699809	CAPNS2	Calpain small subunit 2	0.303313065
17	ILMN_1793537	MUC15	Mucin 15	0.304246498
18	ILMN_3241282	TDRD12	Tudor domain containing 12	0.3073462
19	ILMN_1758888	PADI3	Peptidyl arginine deiminase, type III	0.308214192
20	ILMN_1717710	SLC26A5	Solute carrier anion transporter family 26 member 5	0.309348661
21	ILMN_1678186	ATP6V0A4	ATPase H+ Transporting V0 subunit A4	0.314885512
22	ILMN_2190541	XAGE2B	X antigen family, member 2B	0.31507576
23	ILMN_1701975	SLC9A4	Solute carrier family 9 member A4	0.317610722
24	ILMN_1680987	HAND1	Heart and neural crest derivatives expressed 1	0.32090989
25	ILMN_2133205	GPX2	Glutathione peroxidase 2	0.321564307
26	ILMN_1673191	S100A7A	S100 calcium-binding protein A7	0.321954615
27	ILMN_1759598	DLX5	Distal-less homeobox 5	0.323464337
28	ILMN_1742947	SEC14L4	SEC14p like lipid binding 4	0.325984882
29	ILMN_2246188	SLC45A2	Solute carrier family 45 member 2	0.328835443

Table S3. Clinicopathological characteristics of MIBC patients of Validation Cohort 2.

Characteristic	Patients (n = 99)
Gender	
Male	65 (65.7%)
Female	34 (34.3%)
Age	
Mean (range), years	73.8 (48-98)
Clinicopathological stage at presentation	
Localised	49 (49.5%)
Metastatic	50 (50.5%)

Western Blot Images



* Bands used in Figure 5. Repeat with more equal loading. Ladder used was Spectra™ Multicolor Broad Range Protein Ladder (Cat no 26623, ThermoScientific, Waltham, MA, USA).