

## Supplemental Material

Wild-type sequence for the three constructs comprising the full-length 3'UTR of IGF1R that were utilized in this study. The three mutated sites are highlighted in blue, and the mutated sequence is detailed in the header preceding each construct.

>HmiT100884a: sites 99-105 changed from tacctca to atggagt

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GATCCTTGGATCCTGAATCTGTGCAAAACAGTAACGTGTGCGCACGCGCAGCGGGGTGGGGGGGGAGAGAGA
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CAGCTTCTCTGCAGTAAACACATTTGGGATGTTCTTTTTTCAATATGCAAGCAGCTTTTTATTCCCTGCCCA
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>HmiT100884b: sites 2619-2626 changed from ctacctca to gatggagt

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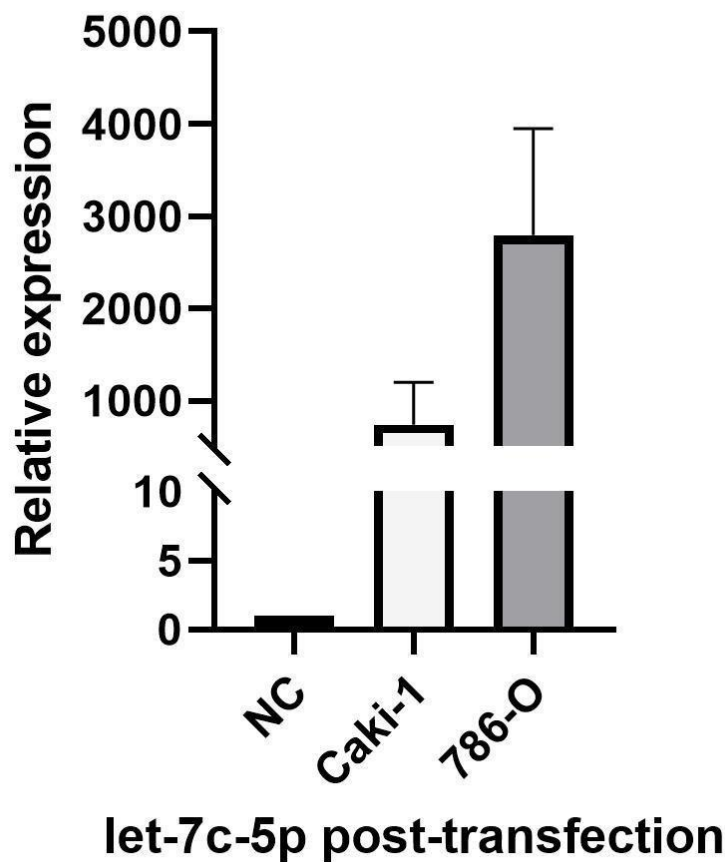
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CCAGGCTGCCCTCTCAACTTCTCCCTCACCTCCTTCCCTAGGGGTAGACAGAGATGTACCAAACCTTCCGGCT  
GGAAAGCCCAGTGGCCGGCGCCGAGGCTCGTGGCGTCACGCCCCCCCCGCCAGGGCTGTACCTCCGTCTCCC  
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>HmiT100884c: sites 6661-6667 changed from ctacctc to gatggag

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AAAGACACTTTCTTCTTCACTCTGAAGTAGCTGGTGGTACAAATGAGAACTTCAAGAGAGGATGTTATTTAG  
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ATCTTAGATGACTGGTTGCGTCATTTGGAGAAGTGAGTGCTCCTTGATGGTGAATGACCGGGTGGTGGGTA  
CAGAACCATTGTCACAGGGATCCTGGCACAGAGAAGAGTTACGAGCAGCAGGGTGCAGGGCTTGAAGGA  
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CATAACGATCACTCATTTTTATGTCCCACGTGTGTGTGTCCGCATCTTTCTGGTCAACATTGTTTTAACTAGTC  
ACTCATTAGCGTTTTCAATAGGGCTCTTAAGTCCAGTAGATTACGGGTAGTCAGTTGACGAAGATCTGGTTTA  
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TGCCGAAAATAATTTAAAGACACTTTTTTTTTCTCTGTGTGTGCAAATGTGTGTTTGTGATCCATTTTTTTTTT  
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GTTACCCCTCTTTTCCCCCATGCTTTTTGCCCTAGTTTATAACAAAGGAATGATGATGATTTAAAAAGTAGTT  
CTGTATCTTCAGTATCTTGGTCTTCCAGAACCCTCTGGTTGGGAAGGGGATCATTTTTTACTGGTCATTTCCCTT  
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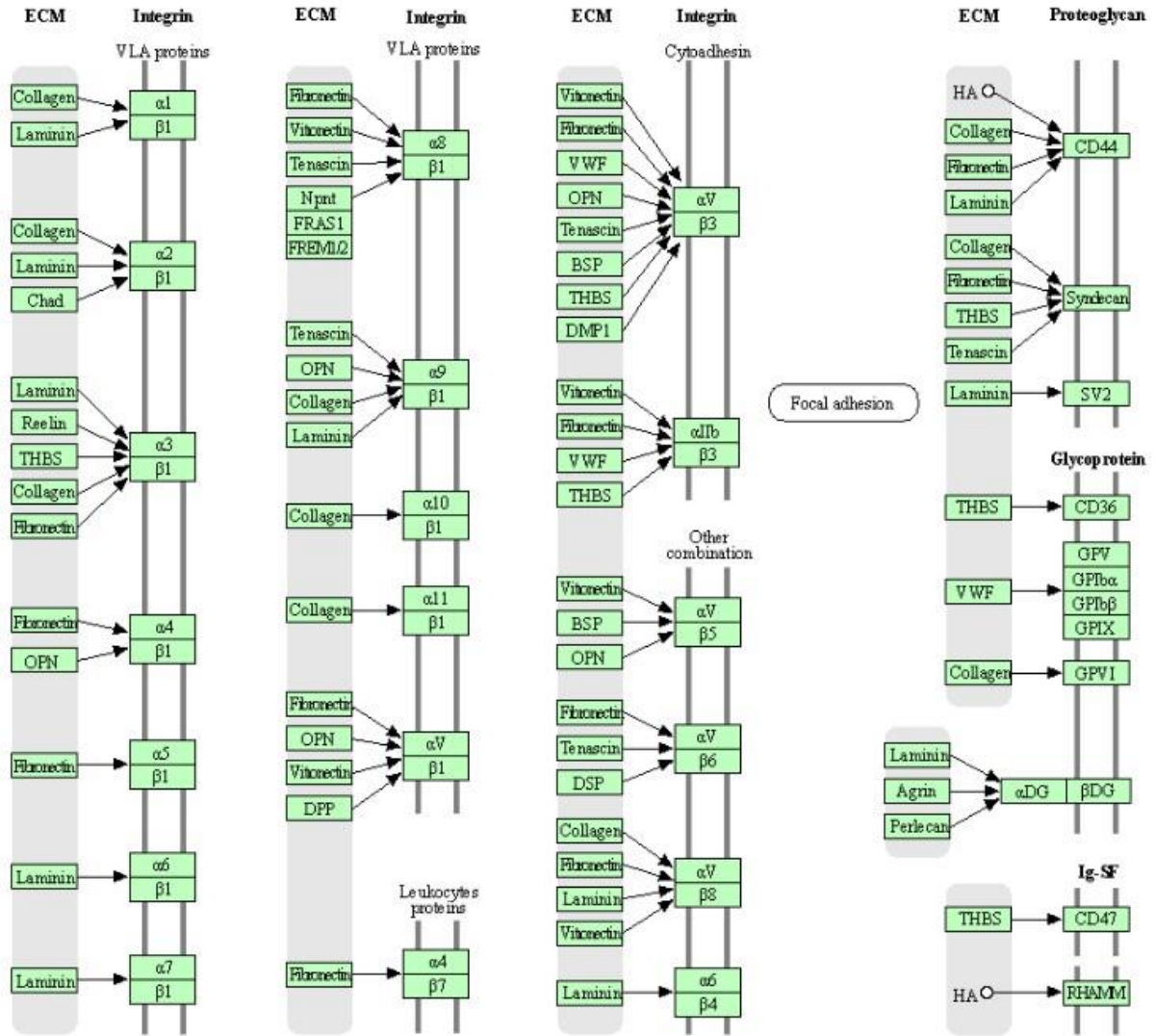
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Relative let-7c-5p expression in transfectants relative to corresponding negative controls.



The KEGG pathway ECM-receptor interaction. This pathway facilitates cellular activities such as adhesion, migration, differentiation, proliferation, and apoptosis (<https://www.genome.jp/pathway/hsa04512>, Kanehisa Lab).

# ECM-RECEPTOR INTERACTION



A list of genes targeted by at least two members of the let-7 family in this study (let-7a-5p, -7b-5p, -7c5p, -7d-5p, and -7e-5p). The number of matches refers to the number of unique let-7 family members identified by microT-CDS (threshold 0.8) for each gene.

Gene	Ensembl ID	let-7 matches
ABCC5	ENSG00000114770	5
ABCC8	ENSG00000006071	4
ABCD4	ENSG00000119688	4
ABL2	ENSG00000143322	5
AC004381.6	ENSG00000005189	4
AC023632.1	ENSG00000212997	5

ACP6	ENSG00000162836	2
ACSL6	ENSG00000164398	5
ACTA1	ENSG00000143632	4
ACTB	ENSG00000075624	5
ACTG2	ENSG00000163017	5
ACVR1B	ENSG00000135503	5
ACVR1C	ENSG00000123612	5
ACVR2A	ENSG00000121989	5
ADA	ENSG00000196839	3
ADAMTS12	ENSG00000151388	5
ADAMTS15	ENSG00000166106	5
ADAMTS5	ENSG00000154736	5
ADAMTS8	ENSG00000134917	5
ADAP2	ENSG00000184060	5
ADIPOR2	ENSG00000006831	4
ADRB1	ENSG00000043591	5
ADRB2	ENSG00000169252	5
ADRB3	ENSG00000188778	5
AEN	ENSG00000181026	4
AGAP1	ENSG00000157985	3
AGBL2	ENSG00000165923	4
AGO3	ENSG00000126070	5
AGO4	ENSG00000134698	4
AGPAT6	ENSG00000158669	3
AHCTF1	ENSG00000153207	5
AIFM1	ENSG00000156709	5
AKAP8	ENSG00000105127	4
AL136115.1	ENSG00000212673	4
ALG8	ENSG00000159063	2
ALPK1	ENSG00000073331	4
AMER3	ENSG00000178171	4

ANKRD49	ENSG00000168876	5
AP000708.1	ENSG00000255537	2
AP1S1	ENSG00000106367	2

ARG2	ENSG00000081181	3
ARHGAP12	ENSG00000165322	4
ARHGAP28	ENSG00000088756	5
ARHGAP8	ENSG00000241484	4
ARHGEF15	ENSG00000198844	2
ARHGEF28	ENSG00000214944	4
ARHGEF38	ENSG00000236699	5
ARID3A	ENSG00000116017	5
ARID3B	ENSG00000179361	5
ARIH1	ENSG00000166233	3
ARL6IP6	ENSG00000177917	4
ARPP19	ENSG00000128989	4
ASAP1	ENSG00000153317	4
ASCC3	ENSG00000112249	3
ASIC1	ENSG00000110881	4
ATP2A2	ENSG00000174437	4
ATPAF1	ENSG00000123472	5
B3GNT1	ENSG00000174684	4
B3GNT7	ENSG00000156966	3
BACH1	ENSG00000156273	5
BCAP29	ENSG00000075790	4
BCAT1	ENSG00000060982	5
BCL2L1	ENSG00000171552	4
BDP1	ENSG00000145734	4
BEGAIN	ENSG00000183092	4
BEND4	ENSG00000188848	5
BRCC3	ENSG00000185515	4
BRD3	ENSG00000169925	4
BRF2	ENSG00000104221	2
BRWD3	ENSG00000165288	4
BSDC1	ENSG00000160058	3
BSND	ENSG00000162399	3
BTBD3	ENSG00000132640	4
BZW1	ENSG00000082153	5
C11orf57	ENSG00000150776	4

C14orf178	ENSG00000197734	3
C14orf28	ENSG00000179476	5
C15orf39	ENSG00000167173	4

C15orf41	ENSG00000186073	4
C16orf52	ENSG00000185716	4
C18orf21	ENSG00000141428	4
C1GALT1	ENSG00000106392	4
C1orf112	ENSG00000000460	2
C1orf159	ENSG00000131591	4
C1orf200	ENSG00000179840	2
C1QTNF3AMACR	ENSG00000273294	3
C20orf194	ENSG00000088854	4
C3orf38	ENSG00000179021	4
C5orf51	ENSG00000205765	4
C8orf58	ENSG00000241852	4
C9orf40	ENSG00000135045	5
CALN1	ENSG00000183166	2
CAMK1	ENSG00000134072	4
CAPRIN2	ENSG00000110888	5
CASP3	ENSG00000164305	4
CASP5	ENSG00000137757	2
CBX5	ENSG00000094916	5
CCDC71L	ENSG00000253276	5
CCL7	ENSG00000108688	4
CCND2	ENSG00000118971	4
CCNF	ENSG00000162063	5
CCNJ	ENSG00000107443	5
CCR7	ENSG00000126353	4
CD200R1	ENSG00000163606	4
CD86	ENSG00000114013	4
CDC25A	ENSG00000164045	2
CDC34	ENSG00000099804	5
CDH8	ENSG00000150394	5

CDKN1A	ENSG00000124762	3
CDV3	ENSG00000091527	4
CEP85L	ENSG00000111860	4
CERCAM	ENSG00000167123	5
CHIA	ENSG00000134216	3
CHRNA7	ENSG00000175344	4
CHSY3	ENSG00000198108	4
CLCN5	ENSG00000171365	5
CLDN12	ENSG00000157224	5
CLDN16	ENSG00000113946	3
CLOCK	ENSG00000134852	4

CNOT2	ENSG00000111596	5
CNTRL	ENSG00000119397	5
COIL	ENSG00000121058	5
COL15A1	ENSG00000204291	4
COL1A1	ENSG00000108821	4
COL1A2	ENSG00000164692	5
COL27A1	ENSG00000196739	5
COL3A1	ENSG00000168542	5
COL4A1	ENSG00000187498	4
COL4A6	ENSG00000197565	4
COL5A2	ENSG00000204262	4
CPA4	ENSG00000128510	5
CPD	ENSG00000108582	4
CPEB1	ENSG00000214575	5
CPEB2	ENSG00000137449	4
CPEB3	ENSG00000107864	4
CPEB4	ENSG00000113742	4
CPM	ENSG00000135678	5
CRCT1	ENSG00000169509	5
CRTAP	ENSG00000170275	3
CSNK2A1	ENSG00000101266	4
CSTA	ENSG00000121552	4
CTD-2535L24.2	ENSG00000266076	5



CTDSPL2	ENSG00000137770	5
CTNND2	ENSG00000169862	4
CTPS2	ENSG00000047230	5
CTSA	ENSG00000064601	4
CYB561D1	ENSG00000174151	4
CYP19A1	ENSG00000137869	4
CYP2C8	ENSG00000138115	3
CYP2R1	ENSG00000186104	5
CYP4F2	ENSG00000186115	4
CYSLTR1	ENSG00000173198	2
DAB1	ENSG00000173406	4
DAGLA	ENSG00000134780	5
DCAF15	ENSG00000132017	4
DCAF6	ENSG00000143164	2
DCLRE1B	ENSG00000118655	2
DCLRE1C	ENSG00000152457	5
DCUN1D3	ENSG00000188215	4
DDI2	ENSG00000197312	5

DDX19B	ENSG00000157349	5
DDX26B	ENSG00000165359	5
DIAPH2	ENSG00000147202	5
DICER1	ENSG00000100697	5
DLC1	ENSG00000164741	4
DLGAP4	ENSG00000080845	5
DMD	ENSG00000198947	5
DMP1	ENSG00000152592	3
DNA2	ENSG00000138346	5
DNAJA2	ENSG00000069345	4
DNAJC10	ENSG00000077232	4
DOK3	ENSG00000146094	4
DPH3	ENSG00000154813	5
DSCR8	ENSG00000198054	4
DTX2	ENSG00000091073	4
DUSP1	ENSG00000120129	4

DUSP12	ENSG00000081721	3
DUSP22	ENSG00000112679	5
DVL3	ENSG00000161202	4
DYRK2	ENSG00000127334	4
DZIP1	ENSG00000134874	2
E2F2	ENSG00000007968	5
E2F5	ENSG00000133740	5
E2F6	ENSG00000169016	4
EDEM3	ENSG00000116406	4
EDN1	ENSG00000078401	5
EEF2K	ENSG00000103319	2
EFHD2	ENSG00000142634	4
EGLN2	ENSG00000269858	4
EIF4ENIF1	ENSG00000184708	5
EIF4G2	ENSG00000110321	5
EIF5B	ENSG00000158417	4
ELF4	ENSG00000102034	4
ELK4	ENSG00000158711	3
ENY2	ENSG00000120533	3
EOGT	ENSG00000163378	4
EPHA4	ENSG00000116106	4
EPHB1	ENSG00000154928	4
ERCC6	ENSG00000225830	5
ERO1L	ENSG00000197930	5
ERRFI1	ENSG00000116285	4

ESRP2	ENSG00000103067	4
ETV3	ENSG00000117036	4
EVI2B	ENSG00000185862	4
FAM103A1	ENSG00000169612	5
FAM104A	ENSG00000133193	4
FAM118A	ENSG00000100376	4
FAM135A	ENSG00000082269	4
FAM135B	ENSG00000147724	4
FAM178A	ENSG00000119906	5

FAM189A1	ENSG00000104059	4
FAM214A	ENSG00000047346	5
FAM214B	ENSG00000005238	4
FAM222B	ENSG00000173065	5
FAM71D	ENSG00000172717	2
FAS	ENSG00000026103	4
FAXC	ENSG00000146267	5
FBXL12	ENSG00000127452	5
FBXO15	ENSG00000141665	2
FGD6	ENSG00000180263	4
FGF11	ENSG00000161958	4
FGFR1OP	ENSG00000213066	4
FIGN	ENSG00000182263	5
FKTN	ENSG00000106692	4
FLNA	ENSG00000196924	4
FMO2	ENSG00000094963	4
FNDC3A	ENSG00000102531	5
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FOXP2	ENSG00000128573	5
FRAS1	ENSG00000138759	5
FRMD4B	ENSG00000114541	5
FRMD5	ENSG00000171877	4
FZD3	ENSG00000104290	4
FZD4	ENSG00000174804	5
GABRA6	ENSG00000145863	4
GALC	ENSG00000054983	4
GALE	ENSG00000117308	4
GALNT1	ENSG00000141429	5
GALNT16	ENSG00000100626	4
GAN	ENSG00000261609	5
GAREM	ENSG00000141441	4
GAS7	ENSG00000007237	5

GATM	ENSG00000171766	5
GCNT4	ENSG00000176928	5

GDAP2	ENSG00000196505	5
GDF6	ENSG00000156466	5
GDPD1	ENSG00000153982	4
GHR	ENSG00000112964	4
GIMAP6	ENSG00000133561	4
GIPC1	ENSG00000123159	4
GJC1	ENSG00000182963	4
GNG5	ENSG00000174021	5
GOLGA4	ENSG00000144674	4
GOLGA6L4	ENSG00000184206	4
GOLT1B	ENSG00000111711	5
GPAM	ENSG00000119927	3
GPATCH2	ENSG00000092978	4
GPATCH8	ENSG00000186566	3
GPC4	ENSG00000076716	5
GPCPD1	ENSG00000125772	4
GPR157	ENSG00000180758	5
GPR26	ENSG00000154478	5
GPR61	ENSG00000156097	4
GREB1L	ENSG00000141449	3
GRHL3	ENSG00000158055	4
GRID2IP	ENSG00000215045	3
GTF2I	ENSG00000077809	4
GXYLT1	ENSG00000151233	5
GYG2	ENSG00000056998	5
HABP4	ENSG00000130956	4
HAND1	ENSG00000113196	5
HDLBP	ENSG00000115677	4
HDX	ENSG00000165259	5
HECTD2	ENSG00000165338	4
HELLS	ENSG00000119969	4
HELZ	ENSG00000198265	4
HFE	ENSG00000010704	4
HIC2	ENSG00000169635	5
HIF1AN	ENSG00000166135	5

HIF3A	ENSG00000124440	5
HIP1	ENSG00000127946	5
HMGA1	ENSG00000137309	4
HOMER2	ENSG00000103942	4

HOOK1	ENSG00000134709	2
HOXA1	ENSG00000105991	5
HOXA9	ENSG00000078399	4
HOXB1	ENSG00000120094	5
HSPA14	ENSG00000187522	4
ICOS	ENSG00000163600	4
IDE	ENSG00000119912	3
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IFITM10	ENSG00000244242	5
IGDCC3	ENSG00000174498	5
IGDCC4	ENSG00000103742	5
IGF1	ENSG00000017427	4
IGF1R	ENSG00000140443	5
IGF2BP1	ENSG00000159217	5
IGF2BP2	ENSG00000073792	4
IGF2BP3	ENSG00000136231	5
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