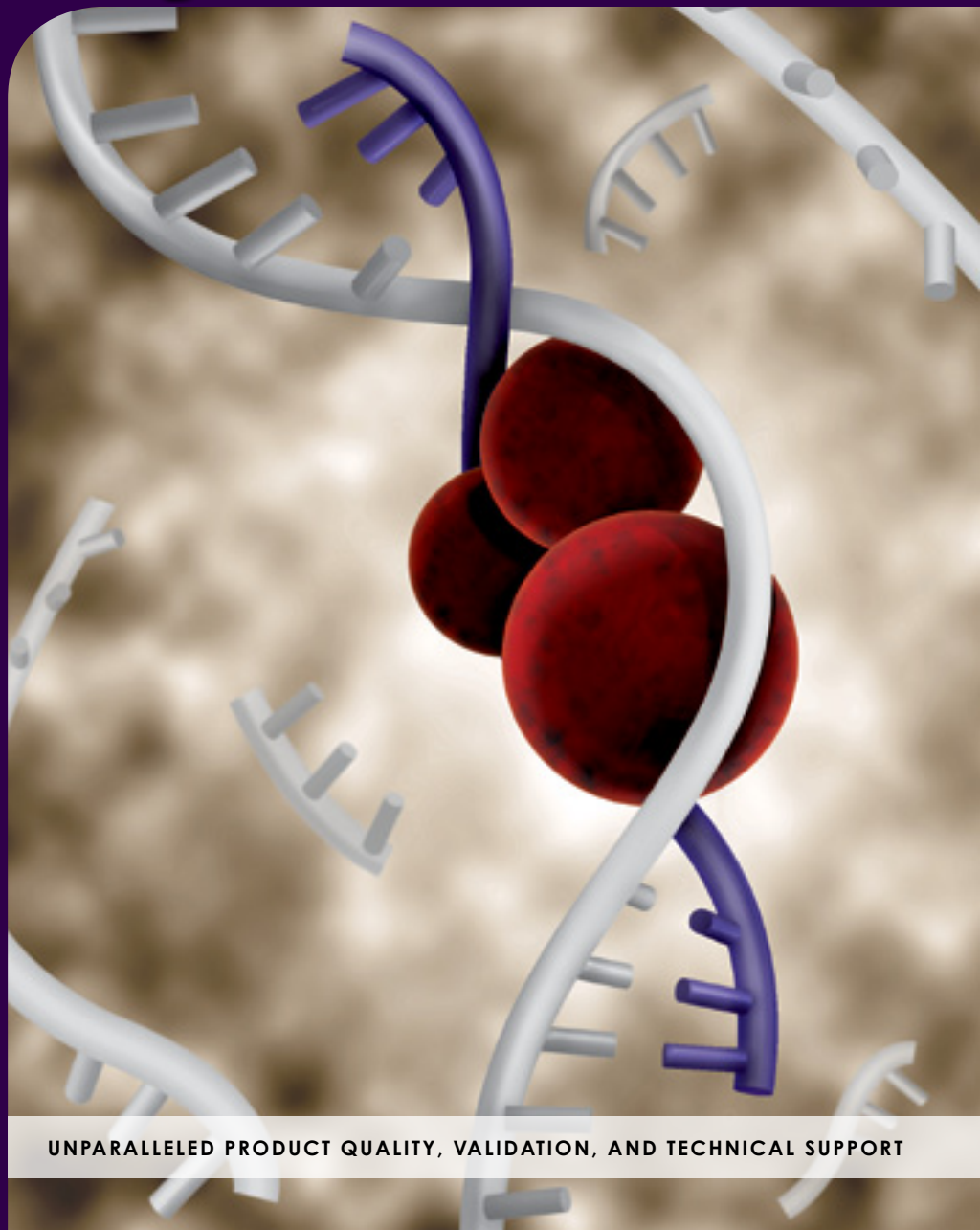




Cell Signaling
TECHNOLOGY®

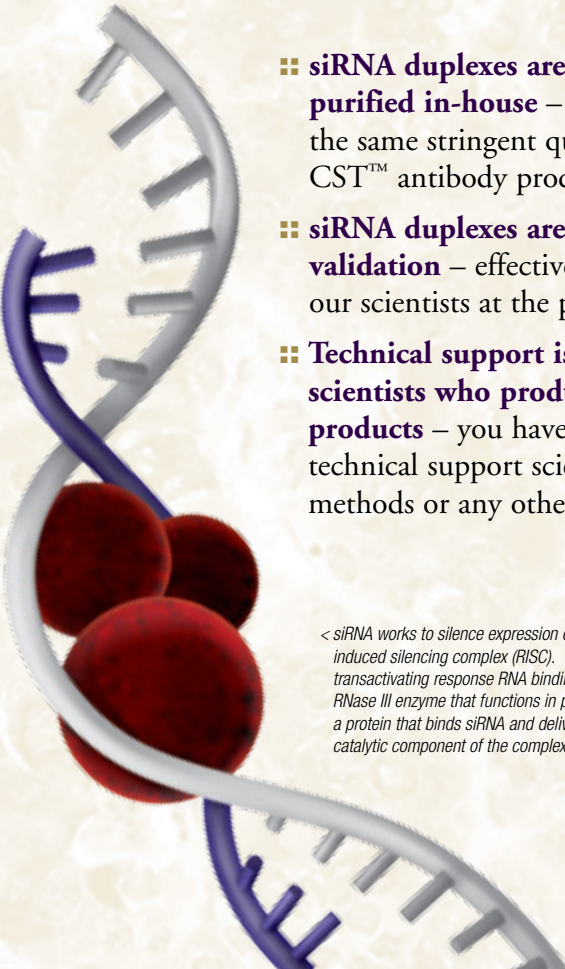
SignalSilence® siRNA

www.cellsignal.com



UNPARALLELED PRODUCT QUALITY, VALIDATION, AND TECHNICAL SUPPORT

SignalSilence® siRNA duplexes from Cell Signaling Technology (CST) allow the researcher to specifically inhibit protein expression in human or mouse systems. These products utilize RNA interference, a method by which gene expression can be selectively silenced through the delivery of double stranded RNA molecules into the cell. Often two equally potent siRNAs are available for each target (siRNA I and II). A fluorescein-labeled non-targeted siRNA control allows the user to monitor transfection efficiency, and an unconjugated control siRNA can be used to control for specificity.

- 
- **siRNA duplexes are designed, produced, and purified in-house** – siRNA products are held to the same stringent quality control standards as CST™ antibody products.
 - **siRNA duplexes are used in-house for antibody validation** – effective knockdown is assessed by our scientists at the protein level.
 - **Technical support is provided by the same scientists who produce and validate the products** – you have access to our knowledgeable technical support scientists to discuss transfection methods or any other questions.

< siRNA works to silence expression of target genes through association with the RNA-induced silencing complex (RISC). This complex minimally consists of the proteins Dicer, transactivating response RNA binding protein (TRBP), and Argonaute 2 (Ago2). Dicer is a RNase III enzyme that functions in processing siRNA from dsRNA precursors and binds TRBP, a protein that binds siRNA and delivers it to the RISC. Ago2, which also binds Dicer, is the catalytic component of the complex that cleaves mRNA to prevent translation.

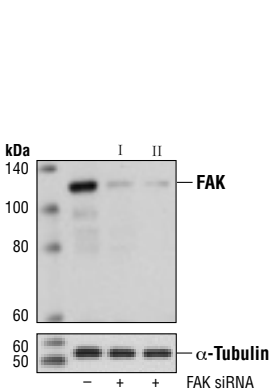
Human Targets

Target	I	II
ABIN-1	#6603	#6609
Akt	#6211	#6510
Akt2	#6396	–
AMPKa2	#6620	#6630
Atg4B	#6336	–
Atg4C	#6325	–
Atg5	#6345	–
Atg7	#6604	–
Atg14	#6286	#6287
ATM	#6328	#6329
ATR	#6288	#6289
Axl	#6263	#6264
β -Arrestin 1	#6218	–
Bad	#6471	#6512
Bak	#6486	–
Bax	#6321	#6514
Beclin-1	#6222	#6246
Bcl-2	#6441	#6516
Bcl-xL	#6362	#6363
Bim	#6461	#6518
c-Jun	#6203	#6204
c-Myc	#6341	#6552
Caspase-3	#6466	#6520
Caspase-10	#6357	–
β -Catenin	#6225	#6238
γ -Catenin	#6226	#6239
CDK5	#6216	#6217
Chk1	#6241	#6522
Chk2	#6276	–
Acetyl-CoA Carboxylase 1	#6224	#6237
Cofilin	#6267	#6268
CREB	#6588	#6590
CTCF	#6265	–
Dicer	#6576	#6585
EGFR	#6480	#6482

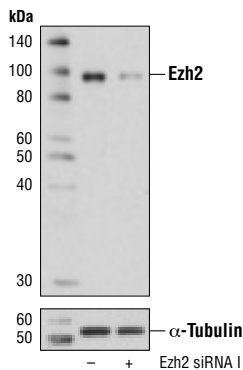
Target	I	II
eIF4E	#6311	#6554
Ezh2	#6509	–
FAK	#6472	#6483
FoxO1	#6242	#6256
FoxO3a	#6302	#6303
Frizzled6	#6596	#6597
GSK-3 α	#6312	#6524
GSK-3 α/β	#6301	–
HER2/ErbB2	#6282	#6283
HER3/ErbB3	#6504	#6422
HSP27	#6356	#6526
IGF-1 Receptor	#6610	–
ILK1	#6202	#6528
I κ B α	#6327	–
IKK α	#6372	#6373
IKK β	#6377	#6378
IRAK1	#6253	#6228
IRF-3	#6274	–
Jak2	#6235	–
KEAP1	#5285	#5289
LC3A	#6214	#6215
LC3B	#6212	#6213
MARK2	#6266	–
Mcl-1	#6315	–
MEK1	#6426	#6530
MEK2	#6431	#6532
Merlin	#6316	#6338
Met	#6618	#6622
MKK3	#6294	#6295
MKK7	#6322	#6323
MTAP	#6284	#6285
mTOR	#6381	#6556
NDRG1	#6245	#6257
NF- κ B	#6261	#6534
p16 INK4A	#6598	–
p21 Waf1/Cip1	#6456	#6558

Target	I	II
p38 MAPK	#6564	#6243
p38 α MAPK	#6269	#6277
p38 β MAPK	#6278	#6279
p38 γ MAPK	#6632	#6633
p38 δ MAPK	#6600	#6601
p42 MAPK (Erk2)	#6540	#6578
p44 MAPK (Erk1)	#6436	–
p44/42 MAPK (Erk1/2)	#6560	–
p53	#6231	#6562
p70/85	#6566	#6572
PAK1	#6361	#6536
PARP	#6304	#6305
PI3K p110 α	#6359	–
PKA C- α	#6406	#6574
PLCy1	#6293	#6254
PTEN	#6251	#6538
Rb	#6451	#6542
RCAS1	#6463	#6496
RKIP	#6296	#6297

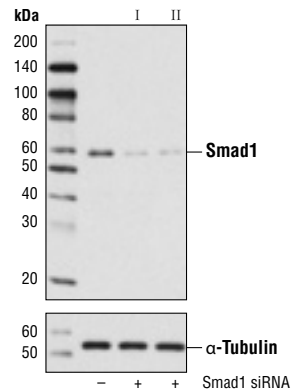
Target	I	II
RMP	#6464	#6495
RSK1	#6313	#6309
RXR α	#6348	–
SAPK/JNK	#6232	#6233
Smad1	#6223	#6227
Stat1	#6331	#6544
Stat3	#6580	#6582
Stat5	#6275	#6298
Stat6	#6358	–
Survivin	#6351	#6546
TAK1	#6317	#6318
Toll-like Receptor 3	#6236	–
TrkA	#6613	–
TTK	#6367	#6368
Tuberin/TSC2	#6476	#6548
USP9X	#6308	–
XIAP	#6446	#6550
YB1	#6206	#6207



SignalSilence[®] FAK siRNA I #6472 & siRNA II #6483: Western blot analysis of extracts from HeLa cells, transfected with 100 nM SignalSilence[®] Control siRNA (Unconjugated) #6568 (-), #6472 (+) or #6483 (+), using FAK Antibody #3285 (upper) or α -Tubulin (11H10) Rabbit mAb #2125 (lower). The FAK Antibody confirms silencing of FAK expression, while the α -Tubulin (11H10) Rabbit mAb is used as a loading control.



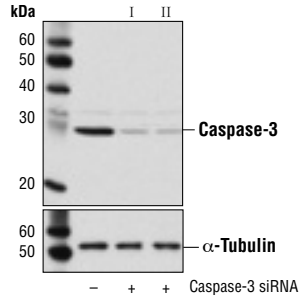
SignalSilence[®] Ezh2 siRNA I #6509: Western blot analysis of extracts from 293 cells, transfected with 100 nM SignalSilence[®] Control siRNA (Unconjugated) #6568 (-) or #6509 (+), using Ezh2 (D2C9) XP[®] Rabbit mAb #5246 (upper) or α -Tubulin (11H10) Rabbit mAb #2125 (lower). The Ezh2 (D2C9) XP[®] Rabbit mAb confirms silencing of Ezh2 expression, while the α -Tubulin (11H10) Rabbit mAb is used as a loading control.



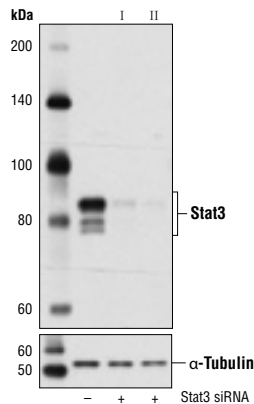
SignalSilence[®] Smad1 siRNA I #6223 & siRNA II #6227: Western blot analysis of extracts from ACHN cells, transfected with 100 nM SignalSilence[®] Control siRNA (Unconjugated) #6568 (-), #6223 (+) or #6227 (+) using Smad1 (D59F7) XP[®] Rabbit mAb #6944 (upper) or α -Tubulin (11H10) Rabbit mAb #2125 (lower). The Smad1 (D59F7) XP[®] Rabbit mAb confirms silencing of Smad1 expression, while the α -Tubulin (11H10) Rabbit mAb is used as a loading control.

Mouse Targets

Target	I	II
4E-BP1	#6392	#6393
Acetyl-CoA Carboxylase 1	#6397	#6398
Akt1	#6909	#6510
Akt2	#6407	#6408
Caspase-3	#6488	#6501
β -Catenin	#6387	#6388
c-Jun	#6204	-
Cofilin	#6494	#6506
CREB	#6343	#6344
Cyclin D1	#6423	#6477
Dicer	#6585	-
GSK-3 α	#6333	-
GSK-3 β	#6993	-
IRS-1	#6346	#6374
LC3A	#6214	-
MEK1	#6426	-
MEK2	#6402	#6403
mTOR	#6332	#6342
p38 α MAPK	#6417	#6418
p44 MAPK (Erk1)	#6352	-
PARP	#6409	#6412
PKA C- α	#6574	-
PTEN	#6251	#6538
SAPK/JNK	#6232	#6233
Stat3	#6353	#6354
YB1	#6206	#6207



SignalSilence® Caspase-3 siRNA I (Mouse Specific) #6488 & siRNA II (Mouse Specific) #6501: Western blot analysis of extracts from NIH/3T3 cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-), #6488 (+) or #6501 (+), using Caspase-3 (8G10) Rabbit mAb #9665 (upper) or α -Tubulin (11H10) Rabbit mAb #2125 (lower). The Caspase-3 (8G10) Rabbit mAb confirms silencing of Caspase-3 expression, while the α -Tubulin (11H10) Rabbit mAb is used as a loading control.



SignalSilence® Stat3 siRNA I (Mouse Specific) #6353 & siRNA II (Mouse Specific) #6354: Western blot analysis of extracts from NIH/3T3 cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-), #6353 (+) or #6354 (+) using Stat3 (124H6) Mouse mAb #9139 (upper) or α -Tubulin (11H10) Rabbit mAb #2125 (lower). The Stat3 (124H6) Mouse mAb confirms silencing of Stat3 expression, while the α -Tubulin (11H10) Rabbit mAb is used as a loading control.

Companion Products

- SignalSilence® Control siRNA (Fluorescein Conjugate) #6201
- SignalSilence® Control siRNA (Unconjugated) #6568



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TECHNOLOGY®

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