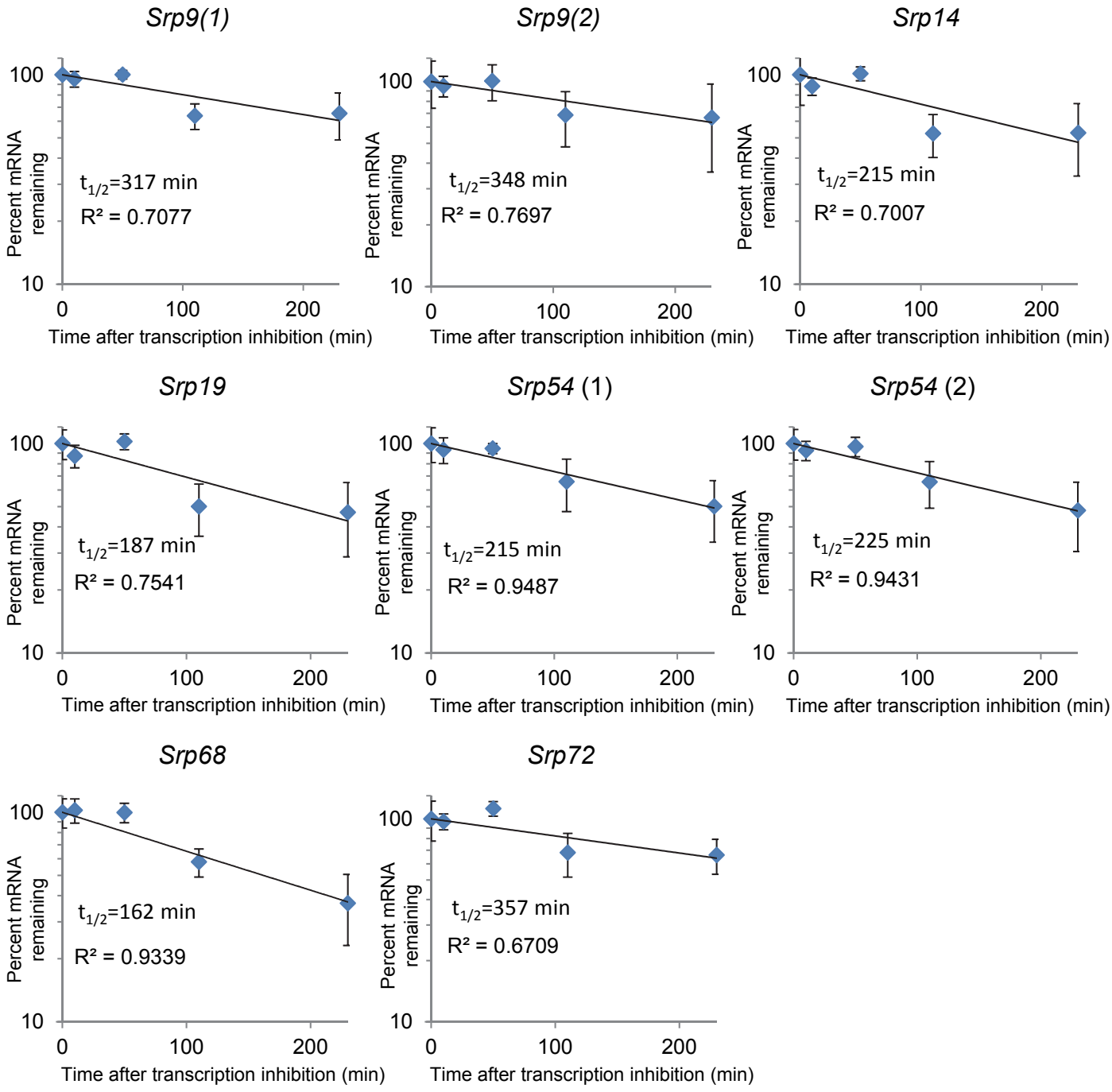

Figure A: Half Lives of Srp mRNAs derived by microarray analysis following ActD treatment. Changes in mRNA abundance following inhibition of transcription were plotted over time. Abundances at each time point represent the mean of three biological replicates and were derived from our previously published microarray experiment (ref 4). Error bars represent the standard deviation. For Srp9 and Srp54 two different transcripts were detected and their half-lives are plotted separately.

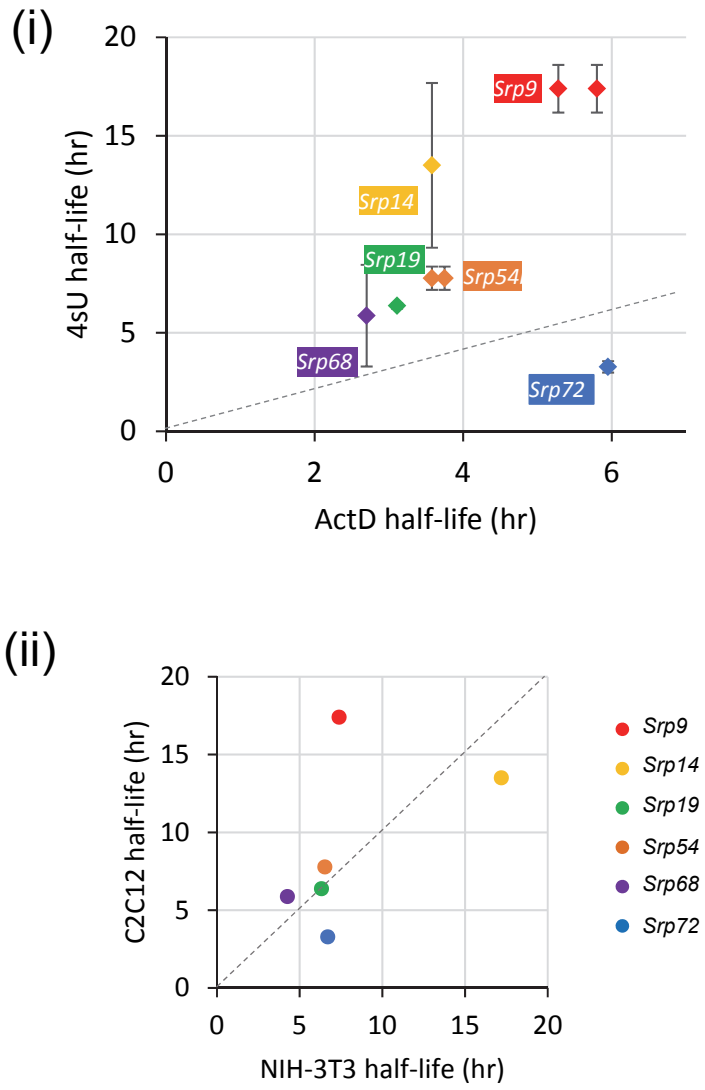

Figure B: (i) Half-lives derived from 4sU labeling are generally longer than those measured following Actinomycin D treatment. The dashed line indicates perfect correlation between the two approaches. Srp9 and Srp54 each encode two transcripts that had different half lives by ActD/microarray but cannot be distinguished by the 4sU approach. Error bars represent the SEM from three independent biological replicates. (ii) Comparison of Srp mRNA half lives in C2C12 cells (this study) and murine NIH-3T3 fibroblasts (ref 47). Decay was assessed through 4sU labeling in both cases. The dashed line indicates perfect correlation between the two cell types.

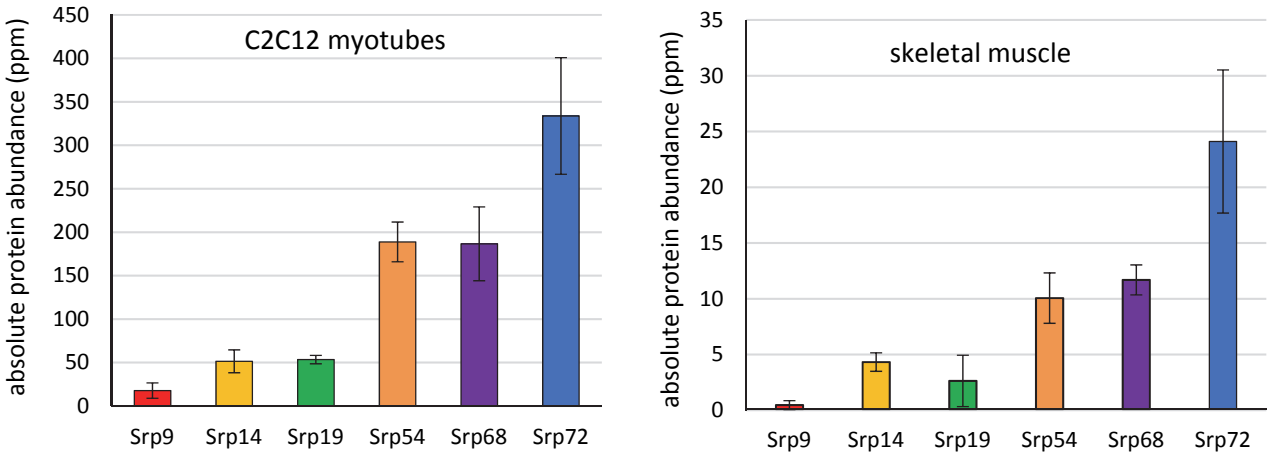

Figure C: SRP proteins have a range of abundances in myotubes and skeletal muscle. Abundances are plotted in parts per million and are derived from data generated through mass spectrometry-based proteomic analysis by Deshmukh et al, 2015 (55).

Table A: Antibodies used in this study

Antigen	Description	Company & Catalog #	Dilution
SRP9	Rabbit Polyclonal	Proteintech 11195-1-AP	1:5,000
SRP19	Rabbit Polyclonal	Proteintech 16033-1-AP	1:2,000
SRP54	Mouse Monoclonal IgG_1	Santa Cruz sc136303	1:5,000
SRP68	Rabbit Polyclonal	Proteintech 11585-1-AP	1:2,500
SRP72	Rabbit Polyclonal	Sigma HPA034621	1:1,000
CELF1	Mouse Monoclonal IgG_1	Santa Cruz sc-20003 (3B1)	1:500
GAPDH	Mouse Monoclonal IgG_{2b}	Chemicon mAB374	1:20,000

Supplementary Table B: Oligonucleotide primers used in this study.

Gene (Genbank Accession#)	Primer Sequences	Product size (nt)
Primers for RT-PCR and qRT-PCR		
Srp9 (NM_012058.3)	Srp9F 5′ TCCTGTGGTGTGAAGAGCAG 3′ Srp9R 5′ GCACACATAACTGCGTCTCG 3′	126
Srp14 (NM_009273.4)	Srp14F 5′ TCCTCTGTTTGCTGCTTTCA 3′ Srp14R 5′ ATATCCAGCCACACAGCACA 3′	137
Srp19 (NM_025527.3)	Srp19F 5′ ACATGGCATCCTTGTGTCTG 3′ Srp19R 5′ AAGCTGGATGCAAACTTCTGA 3′	129
Srp54† (NM_011899.4)	Srp54F 5′ AAAATAAGGCCGTAGCAGCA 3′ Srp54R 5′ ACCGTCACTGGAATTGAAGC 3′	98
Srp68 (NM_146032.3)	Srp68F 5′ CCCATGGATTTGAAATGACC 3′ Srp68R 5′ CTGACCACAACTCTGGGTGA 3′	102
Srp72 (NM_025691.1)	Srp68F 5′ TCACAAGGCTTTCCTGCTCT 3′ Srp68R 5′ AGCAATGTCGACCCCTCTTA 3′	96
Gapdh (NM_008084)	GapdhF 5′ TCACCACCATGGAGAAGGC 3′ GapdhR 5′ GCTAAGCAGTTGGTGGTCA 3′	168
Myc (NM_001177352.1)	MycF 5′ CTGTCCATTCAAGCAGACGA 3′ MycR 5′ TCCAGCTCCTCCTCGAGTTA 3′	138
Runx3 (NM_019732.2)	Runx3F 5′ ACTTCCTCTGCTCCGTGCT 3′ Runx3R 5′ GGTCACCACCGTTCCATC 3′	107
Gluc (plasmid sequence)	GLucF 5′ TGAGATTCCTGGGTTCAAGG 3′ GLucR 5′ GTCAGAACACTGCACGTTGG 3′	121
Fluc (plasmid sequence)	FLucF 5′ CACCTTCGTGACTTCCCATT 3′ FLucR 5′ TGACTGAATCGGACACAAGC 3′	168
MFA2 (NM_001182983.1)	MFA2F 5′AATGCAACCGATCACCACTG 3′ MFA2R 5′GATAACACAGGCGGGATCCC 3′	117
Srp68 (NM_146032.3)	SRP68ORF-F 5′ *GATCGAATTC*AGCTGCTGAGAAGCAGATCCCG 3′ SRP68ORF-R 5′ *TCGCGGATCC*TTAGCTCCTGAAACCAAAGATG 3′	1898
Primers to generate products for *in vitro* transcription of 3'UTR sequences (forward primers have the T7 or SP6 promoter at the 5' end)		
Srp9 (NM_012058.3)	9-IVT-F 5′ TAATACGACTCACTATAGGGTAGCATGCCTCTCAGAACTG 3′ 9-IVT-R 5′ ATTTCAAGTTATTCACCATGAC 3′	191
Srp14 (NM_009273.4)	14-IVT-F 5′ TAATACGACTCACTATAGGGATTCCAGCCGTAAGGTTTC 3′ 14-IVT-R 5′ CCACCTGTAGGATAACACAAC 3′	212
Srp19 (NM_025527.3)	19-IVT-F 5′ TAATACGACTCACTATAGGGAGAGACATGGCATCCT 3′ 19-IVT-R 5′ CATTGTTAACTGTTGATGAAGATGG 3′	120
Srp54 (NM_011899.4)	54-IVT-F 5′ TAATACGACTCACTATAGGGTGATGCCAGTGAAAGAATGG 3′ 54-IVT-R 5′ TTGAGGTGGGAAGACACATAC 3′	189
Srp68 (NM_146032.3)	68-IVT-F 5′ TAATACGACTCACTATAGGGCAGAGCTCAGCACCCTCAG 3′ 68-IVT-R 5′ AATCCATGGGACTGAGGACA 3′	264
Srp72 (NM_025691.1)	72-IVT-F 5′ TAATACGACTCACTATAGGGCCAGAAACTCACCGTCTA 3′ 72-IVT-R 5′ AGAACACTGGGGCAAGAGTC 3′	236
7SL RNA*	7SL-IVT-F 5′ CATAGCATTTAGGTGACACTATGGCCGGGCGCGGTGGCGCG 3′ 7SL-IVT-R 5′ AGAGACGGGGTCTCGCTATGTTGCCC 3′	322

†Note that the primers used to detect Srp54 detect the mRNA products from all three murine Srp54 paralogs (*Srp54a, Srp54b* and *Srp54c*) which encode virtually identical proteins.
*The murine 7SL RNA is not annotated in Genbank. We used the human 7SL RNA sequence (NR_002715.1) and blasted it against the mouse genome to identify a region on Chromosome 12 with 99% identity to the human gene. This region was used to design the 7SL primers.