

Supplementary Information for

Dynamic Expression and Chromatin Incorporation of ACT and CREM Transcription Factors in Testis Tissues of Infertile Men

Parham Jazireian, MSc.^{1,2}, Raha Favaedi, M.Sc.², Mohammad Ali Sadighi Gilani, M.D.^{3,4}, Maryam Shahhoseini, Ph.D.^{1,2,5*}

Reproductive Epidemiology Research Center, Royan Institute for Reproductive Biomedicine, ACECR, Tehran, Iran
 Department of Genetics, Reproductive Biomedicine Research Center, Royan Institute for Reproductive Biomedicine, ACECR, Tehran, Iran
 Department of Andrology, Reproductive Biomedicine Research Center, Royan Institute for Reproductive Biomedicine, ACECR, Tehran, Iran
 Department of Urology, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran
 Department of Cell and Molecular Biology, School of Biology, College of Science, University of Tehran, Tehran, Iran

*Corresponding Address: P.O.Box: 16635-148, Department of Genetics, Reproductive Biomedicine Research Center, Royan Institute for Reproductive Biomedicine, ACECR, Tehran, Iran Email: m.shahhoseini@royaninstitute.org

Table S1: Correlation among expression levels of four genes in round spermatid maturation arrest group using Spearman's test (two-tailed)

	TNP1	TNP2	PRM1	PRM2
	expression	expression	expression	expression
TNP1 expression	P=0.000	P=0.280	P=9.762e-010	P=0.001
	r=1.000	r=0.254	r=0.938	r=0.704
TNP2 expression	P=0.280	P=0.000	P=0.246	P=0.544
	r=0.254	r=1.000	r=0.272	r=0.144
PRM1 expression	P=9.762e-010	P=0.246	P=0.000	P=1.196e-004
	r=0.938	r=0.272	r=1.000	r=0.755
PRM2 expression	P=0.001	P=0.544	P=1.196e-004	P=0.000
	r=0.704	r=0.144	r=0.755	r=1.000

Table S2: Correlation among expression levels of four genes in obstructive azoospermia group using Spearman's test (two-tailed)

	TNP1	TNP2	PRM1	PRM2
	expression	expression	expression	expression
TNP1 expression	P=0.000	P=0.067	P=0.027	P=0.044
	r=1.000	r=0.612	r=0.709	r=0.661
TNP2 expression	P=0.067	P=0.000	P=0.067	P=0.096
	r=0.612	r=1.000	r=0.612	r=0.564
PRM1 expression	P=0.027	P=0.067	P=0.000	P=0.096
	r=0.709	r=0.612	r=1.000	r=0.564
PRM2 expression	P=0.044	P=0.096	P=0.096	P=0.000
	r=0.661	r=0.564	r=0.564	r=1.000

 Table S3: Correlation among ACT/CREM incorporation and their target gene expressions in round spermatid maturation arrest group using Spearman's test (two-tailed)

	TNP1	TNP2	PRM1	PRM2
	expression	expression	expression	expression
ACT incorporation	P=0.987	P=0.031	P=0.031	P=0.289
	r=-0.004	r=0.484	r=-0.483	r=-0.250
CREM incorporation	P=0.658	P=0.658	P=0.017	P=0.950
	r=-0.257	r=0.257	r=-1.000	r=-0.100

Table S4: Correlation among ACT/CREM incorporation and their target gene expressions in obstructive azoospermia group using Spearman's test (two-tailed)

	TNP1	TNP2	PRM1	PRM2
	expression	expression	expression	expression
ACT incorporation	P=0.632	P=0.044	P=0.513	P=0.387
	r=0.176	r=-0.661	r=0.236	r=-0.309
CREM incorporation	P=1.000	P=1.000	P=0.333	P=0.333
	r=-0.500	r=0.500	r=1.000	r=-0.100