

**Supplementary Table 3.** Comparative analysis between the proteomic profiles detected in tissue around UnicCa implants with respect the proteomic profiles obtained with tissue around C implants after 5 days of *in vivo* experimentation. Proteins with  $p \leq 0.05$  (yellow) and a ratio higher than 1.5 in either direction were considered as significantly different. Up-regulated proteins in tissue formed around UnicCa are marked in red, while those downregulated are marked in green.

Uniprot entry	Protein name	Unique peptides	p value	Ratio UnicCa/C
G1TIB4_RABIT	40S ribosomal protein S28	1	1,3E-03	43,76
G1SGW0_RABIT	Epithelial membrane protein 3	1	1,1E-02	7,03
AOA5F9DE69_RABIT	Transmembrane 9 superfamily member	1	5,9E-03	6,69
G1U8K3_RABIT	ATP-dependent Clp protease proteolytic subunit	2	1,7E-02	4,78
G1T2P2_RABIT	TANK binding kinase 1	1	1,4E-02	3,96
AOA5F9C595_RABIT	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 3	1	1,2E-02	3,49
G1T8K2_RABIT	Protein kinase C and casein kinase substrate in neurons 2	2	4,2E-02	3,45
G1T4Z0_RABIT	Formin like 2	1	7,0E-03	3,44
G1SP02_RABIT	Pyruvate dehydrogenase phosphatase regulatory subunit	1	1,1E-02	3,41
G1SU66_RABIT	Four and a half LIM domains 2	1	1,3E-02	3,13
AOA5F9D404_RABIT	FAD-binding PCMH-type domain-containing protein	1	4,4E-02	3,09
G1TDA7_RABIT	Cell division cycle 5 like	2	3,9E-02	3,00
AOA5F9DDK3_RABIT	Uncharacterized protein	1	8,0E-03	2,97
G1U3G6_RABIT	Aminoacyl-tRNA hydrolase	2	2,0E-02	2,71
G1T0U0_RABIT	Mitochondrial import inner membrane translocase subunit	1	1,5E-02	2,56
G1SSF6_RABIT	J domain-containing protein	1	1,3E-02	2,51
AOA5F9D316_RABIT	Malic enzyme	2	2,5E-02	2,51
AOA5F9DIG7_RABIT	3-ketodihydrosphingosine reductase	1	4,9E-02	2,45
DHI1_RABIT	Corticosteroid 11-beta-dehydrogenase isozyme 1	5	2,7E-02	2,40
G1SHF3_RABIT	Nitrilase 1	3	2,6E-02	2,15
G1SYK3_RABIT	Mitogen-activated protein kinase kinase 4	2	2,4E-02	2,01
AOA5F9DBR7_RABIT	Thioredoxin domain-containing protein 17	1	3,5E-02	1,97
AOA5F9CUK4_RABIT	Polyadenylate-binding protein	2	3,5E-02	1,74
G1T004_RABIT	Phosphoacetylglucosamine mutase	9	4,3E-02	1,72

G1TEU8_RABIT	Tubulin-folding cofactor C	2	1,5E-02	1,71
G1SSX5_RABIT	Methionine--tRNA ligase, cytoplasmic	4	1,3E-02	1,69
CASP3_RABIT	Caspase-3	4	2,4E-02	1,65
G1TNV7_RABIT	Glycine C-acetyltransferase	1	2,1E-02	1,63
AOA5F9D2K5_RABIT	Parathion hydrolase-related protein	2	8,8E-03	1,60
PP2AA_RABIT	Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform	1	3,4E-02	1,57
AOA5F9CRP1_RABIT	Intercellular adhesion molecule 3	1	4,7E-02	1,56
AOA5F9DII4_RABIT	Signal recognition particle subunit SRP68	6	3,0E-02	1,54
AOA5F9CFF7_RABIT	N-acylsphingosine amidohydrolase 1	5	4,4E-02	1,52
G1SN15_RABIT	Probable tRNA N6-adenosine threonylcarbamoyltransferase	3	1,8E-02	1,52
G1U0M5_RABIT	Peroxidase	6	5,4E-03	0,66
G1TR82_RABIT	Tubulin alpha chain	2	2,8E-03	0,58
AOA5F9CJWO_RABIT	Fibronectin	0	1,4E-02	0,53
AOA5F9C4Q6_RABIT	Spermine synthase	2	4,4E-02	0,53
G1T3L2_RABIT	Eukaryotic translation initiation factor 3 subunit K	3	1,8E-02	0,50
G1T1Z5_RABIT	Extracellular matrix protein 1	12	3,6E-02	0,44
G1SGQ7_RABIT	LDL receptor related protein 4	1	3,7E-02	0,23
AOA5F9D150_RABIT	Fibulin-5	3	7,0E-03	0,23
G1T3X1_RABIT	Complement component C9	1	3,6E-02	0,23