**Table S2.** List of sperm proteins in negative control group.

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| --- | --- | --- | --- | --- |
| **Bil.** | **No. ID Protein** | | **Nama Protein** | **Berat Molekul [kDa]** |
| 1 | | B0K020 | CDGSH iron-sulfur domain-containing protein 1 | 12.089 |
| 2 | | O35774 | A-kinase anchor protein 4 | 93.434 |
| 3 | | O88778 | Protein bassoon | 418.168 |
| 4 | | P01835 | Ig kappa chain C region, B allele | 11.594 |
| 5 | | P02091 | Hemoglobin subunit beta-1 | 15.969 |
| 6 | | P02770 | Serum albumin | 68.686 |
| 7 | | P04636 | Malate dehydrogenase | 35.661 |
| 8 | | P04764 | Alpha-enolase | 47.098 |
| 9 | | P04797 | Glyceraldehyde-3-phosphate dehydrogenase | 35.805 |
| 10 | | P04905 | Glutathione S-transferase Mu 1 | 25.897 |
| 11 | | P05708 | Hexokinase-1 | 102.342 |
| 12 | | P05712 | Ras-related protein Rab-2A | 23.521 |
| 13 | | P06761 | 78 kDa glucose-regulated protein | 72.302 |
| 14 | | P06911 | Epididymal-specific lipocalin-5 | 20.656 |
| 15 | | P09916 | Somatoliberin | 12.258 |
| 16 | | P10719 | ATP synthase subunit beta | 56.318 |
| 17 | | P12020 | Cysteine-rich secretory protein 1 | 27.829 |
| 18 | | P12346 | Serotransferrin | 76.346 |
| 19 | | P13086 | Succinate--CoA ligase [ADP/GDP-forming] subunit alpha | 36.125 |
| 20 | | P15999 | ATP synthase subunit alpha | 59.717 |
| 21 | | P18163 | Long-chain-fatty-acid--CoA ligase 1 | 78.128 |
| 22 | | P19629 | L-lactate dehydrogenase C chain | 35.664 |
| 23 | | P20760 | Ig gamma-2A chain C region | 35.163 |
| 24 | | P21769 | Outer dense fiber protein 1 | 27.331 |
| 25 | | P32551 | Cytochrome b-c1 complex subunit 2 | 48.366 |
| 26 | | P55054 | Fatty acid-binding protein 9 | 15.08 |
| 27 | | P60711 | Actin, cytoplasmic 1 | 41.71 |
| 28 | | P62632 | Elongation factor 1-alpha 2 | 50.422 |
| 29 | | P62982 | Ubiquitin-40S ribosomal protein S27a | 17.939 |
| 30 | | P81155 | Voltage-dependent anion-selective channel protein 2 | 31.726 |
| 31 | | Q07647 | Solute carrier family 2 | 53.546 |
| 32 | | Q07936 | Annexin A2 OS=Rattus norvegicus | 38.654 |
| 33 | | Q10758 | Keratin, type II cytoskeletal 8 | 53.985 |
| 34 | | Q4FZU2 | Keratin, type II cytoskeletal 6A | 59.213 |
| 35 | | Q4V7A4 | Fibrous sheath CABYR-binding protein | 87.996 |
| 36 | | Q5GRG2 | Carboxylesterase 5A | 64.376 |
| 37 | | Q5XI62 | Protein MENT | 37.617 |
| 38 | | Q5XIH7 | Prohibitin-2 | 33.292 |
| 39 | | Q5XIJ9 | Succinyl-CoA:3-ketoacid coenzyme A transferase 2A | 56.864 |
| 40 | | Q62803 | Hyaluronidase PH-20 | 58.375 |
| 41 | | Q64298 | Sperm mitochondrial-associated cysteine-rich protein | 15.136 |
| 42 | | Q66HD0 | Endoplasmin | 92.713 |
| 43 | | Q68FR8 | Tubulin alpha-3 chain | 49.928 |
| 44 | | Q6AXX6 | Redox-regulatory protein FAM213A | 25.746 |
| 45 | | Q6AYX5 | Outer dense fiber protein 2 | 95.381 |
| 46 | | Q6IFV1 | Keratin, type I cytoskeletal 14 | 52.651 |
| 47 | | Q6IFW6 | Keratin, type I cytoskeletal 10 | 56.47 |
| 48 | | Q6IG02 | Keratin, type II cytoskeletal 2 epidermal | 69.085 |
| 49 | | Q6IMF3 | Keratin, type II cytoskeletal 1 | 64.791 |
| 50 | | Q6P6Q2 | Keratin, type II cytoskeletal 5 | 61.788 |
| 51 | | Q6P9T8 | Tubulin beta-4B chain | 49.769 |
| 52 | | Q6YFQ1 | Cytochrome c oxidase subunit 6B2 | 10.465 |
| 53 | | Q8VHF5 | Citrate synthase, mitochondrial | 51.833 |
| 54 | | Q91XR8 | Phospholipid hydroperoxide glutathione peroxidase, nuclear | 29.317 |
| 55 | | Q9Z1B2 | Glutathione S-transferase Mu 5 | 26.611 |