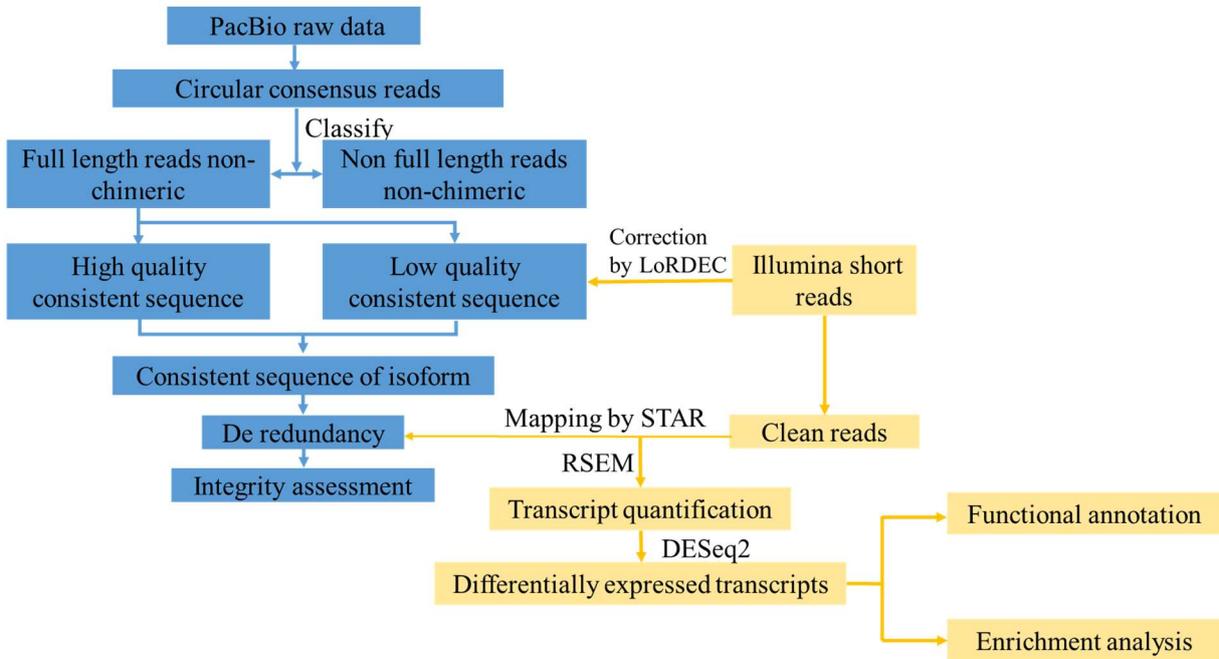


**Figure S1** Experimental equipment



**Figure S2** Relationship and key analysis procedures between PacBio sequencing and Illumina sequencing. The blue part represents the PacBio sequencing, and the yellow part represents the Illumina sequencing.

**Table S1** Functional annotation of the key differential expression transcripts

<b>Name</b>	<b>Functional description</b>	<b>Functional documentation</b>
<i>hsf1</i>	heat shock transcription factor 1	<i>hsf1</i> mediates transactivation of heat shock genes and plays roles in dividing cells[1]
<i>hsp90aa</i> 1.2	heat shock protein 90, alpha, class a member 1, tandem duplicate 2	<i>hsp90ab1</i> ( <i>hsp90</i> $\alpha$ family class a member 1) is associated with reproductive processes and cell proliferation[2, 3]
<i>hsp90ab</i> 1	heat shock protein 90, alpha, class b member 1	<i>hsp90ab1</i> ( <i>hsp90</i> $\alpha$ family class b member 1) is associated with reproductive processes and cell proliferation[2, 3]
<i>hspa9</i>	heat shock protein 9	-
<i>ldlrap1a</i>	low-density lipoprotein receptor adaptor protein 1a	<i>ldlrap1a</i> is a ligand-binding site of the vitellogenin receptor[4]
<i>lrp13</i>	low-density lipoprotein receptor related protein 13	<i>lrp13</i> is a vitellogenin receptor in mediating yolk formation[5]
<i>loc1005</i> 36757	very low-density lipoprotein receptor-like	-
<i>picalma</i>	phosphatidylinositol binding clathrin assembly protein a	<i>picalm</i> bind to the cytoplasmic membrane to mediate yolk endocytosis[6]
<i>arpc5lb</i>	actin-related protein 2/3 complex subunit 5-like, b	<i>arpc5lb</i> (subunit of the <i>arp2/3</i> complex), which coordinates actin network formation, plays an important role in mediating clathrin endocytosis[7]
<i>tuba1b</i>	tubulin, alpha 1b	<i>tuba4l</i> , <i>tubb2b</i> , and <i>tuba1b</i> are the main constituents of tubulin[8, 9]
<i>tuba4l</i>	tubulin, alpha 4 like	<i>tuba4l</i> , <i>tubb2b</i> , and <i>tuba1b</i> are the main constituents of tubulin[8, 9]
<i>tubb2b</i>	tubulin, beta 2b	<i>tuba4l</i> , <i>tubb2b</i> , and <i>tuba1b</i> are the main constituents of tubulin[8, 9]
<i>mapta</i>	microtubule-associated protein tau a	-
<i>kif15</i>	kinesin family member 15	<i>kif15</i> plays a balancing role in transferring microtubule cytoskeleton into bipolar spindle[10]
<i>kif20b</i>	kinesin family member 20b	<i>kif20b</i> plays a positive role in driving and regulating cytokinesis during meiosis[11]
<i>kif4</i>	kinesin family member 4	<i>kif4</i> involves in chromosome formation, and drives microtubule sliding and chromosome compaction[12]
<i>kif5c</i>	kinesin family member 5c	<i>kif5c</i> main expressed in neurons and play a role in transport processes[13].
<i>kifap3b</i>	kinesin-associated protein 3b	-
<i>dctn1a</i>	dynein 1a	<i>dctn1a</i> involves in microtubule binding to dynein, and acts as a key regulator for synthesizing dynein during microtubule transport[14]
<i>dync1i2</i> a	dynein, cytoplasmic 1, intermediate chain 2a	<i>Dync1i2a</i> attaches to the spindle in the early stages of mitosis and relates to morphological mutation and apoptosis[15]
<i>anln</i>	actin binding protein	<i>anln</i> , as a highly conserved multi-domain protein, is associated with microtubules and plays an important role in cytokinesis[16, 17]
<i>actb1</i>	actin, beta 1	-
<i>myh9b</i>	myosin, heavy chain 9b, non-muscle	<i>myh9a</i> and <i>myh9b</i> are non-muscle myosin that present in every cell, which bind to the actin cytoskeleton to perform intracellular motor functions[18].
<i>myh9a</i>	myosin, heavy chain 9a, non-muscle	<i>myh9a</i> and <i>myh9b</i> are non-muscle myosin that present in every cell, which bind to the actin cytoskeleton to perform intracellular motor functions[18].
<i>myo1b</i>	myosin 1b	-
<i>myo10l3</i>	myosin x, like 3	-
<i>mybph</i>	myosin binding protein h	Myosin binding protein H ( <i>mybph</i> ) is considered to be related to autophagy[19].
<i>mylk5</i>	myosin, light chain kinase 5	-

## Reference

1. Vihervaara, A. and Sistonen, L. HSF1 at a glance. *J. Cell. Sci.* **2014**, 127(2), 261-266. [[CrossRef](#)]
2. Dhamad, A. E., Zhou, Z., Zhou, J., Du, Y. and Didier, P. Systematic proteomic Identification of the heat shock proteins (Hsp) that Interact with Estrogen receptor alpha (ER $\alpha$ ) and biochemical characterization of the ER $\alpha$ -Hsp70 Interaction. *Plos One.* **2016**, 11(8), e0160312. [[CrossRef](#)]
3. Seibert, J. T., Adur, M. K., Schultz, R. B., Thomas, P. Q. and Ross, J. W. Differentiating between the effects of heat stress and lipopolysaccharide on the porcine ovarian heat shock protein response. *J. Anim. Sci.* **2019**, 97(12). [[CrossRef](#)]
4. Shu, Y. H., Wang, J. W., Lu, K., Zhou, J. L., Zhou, Q. and Zhang, G. R. The first vitellogenin receptor from a Lepidopteran insect: molecular characterization, expression patterns and RNA interference analysis. *Insect Mol. Biol.* **2010**. [[CrossRef](#)]
5. Reading, B. J., Hiramatsu, N., Schilling, J., Molloy, K. T., Glassbrook, N., Mizuta, H., Luo, W., Baltzegar, D. A., Williams, V. N., Todo, T., Hara, A. and Sullivan, C. V. Lrp13 is a novel vertebrate lipoprotein receptor that binds vitellogenins in teleostfishes. *J. Lipid. Res.* **2014**, 55: 2287-2295. [[CrossRef](#)]
6. Scotland, P. B., Heath, J. L., Conway, A. E., Porter, N. B., Armstrong, M. B., Walker, J. A., Kl Eb Ig, M. L., Lavau, C. P., Wechsler, D. S. and Arun, R. The PICALM protein plays a key role in iron homeostasis and cell proliferation. *Plos One.* **2012**, 7(8), e44252. [[CrossRef](#)]
7. Papalazarou, V. and Machesky, L. M. The cell pushes back: The Arp2/3 complex is a key orchestrator of cellular responses to environmental forces. *Curr. Opin. Cell. Biol.* **2021**, 68: 37-44. [[CrossRef](#)]
8. Roll-Mecak, A. The tubulin code in microtubule dynamics and information encoding. *Dev Cell.* **2020**, 54(1), 7-20. [[CrossRef](#)]
9. Xu, Q. Q., Qin, L. T., Liang, S. W., Chen, P. and Chen, J. B. The expression and potential role of tubulin alpha 1b in Wilms' tumor. *BioMed Res. Int.* **2020**, 2020:1-10. [[CrossRef](#)]
10. Reinemann, D. N., Sturgill, E. G., Das, D. K., Degen, M. S., V?R?S, Z., Hwang, W., Ohi, R. and Lang, M. J. Collective force regulation in anti-parallel microtubule gliding by dimeric Kif15 kinesin motors. *Curr. Biol.* **2017**. [[CrossRef](#)]
11. Li, G., Xie, Z. K., Zhu, D. S., Guo, T., Cai, Q. L. and Wang, Y. KIF20B promotes the progression of clear cell renal cell carcinoma by stimulating cell proliferation. *J. Cell Physiol.* **2019**. [[CrossRef](#)]
12. Cross, R. A. and Mcainsh, A. Prime movers: the mechanochemistry of mitotic kinesins. *Nat. Rev. Mol cell biol.* **2014**. [[CrossRef](#)]
13. Campbell, P. D. and Marlow, F. L. Temporal and tissue specific gene expression patterns of the zebrafish kinesin-1 heavy chain family, kif5s, during development. *Gene. Expression Patterns Gep.* **2013**, 13(7), 271-279. [[CrossRef](#)]
14. Yong, D. L., Kim, B., Jung, S., Kim, H. and Kim, H. The dynactin subunit DCTN1 controls osteoclastogenesis via the Cdc42/PAK2 pathway. *Exper. Mol. Med.* **2020**, 52(3). [[CrossRef](#)]
15. Ansar, M., Ullah, F., Paracha, S. A., Adams, D. J. and Antonarakis, S. E. Article bi-allelic variants in DYNC112 cause syndromic microcephaly with intellectual disability, cerebral malformations, and dysmorphic facial features. *Am. J. Hum. Gen.* **2019**, 104(6). [[CrossRef](#)]
16. Piekny, A. J. and Maddox, A. S. The myriad roles of Anillin during cytokinesis. *Semin. Cell Dev. Biol.* **2010**, 21(9), 881-891. [[CrossRef](#)]
17. Zhou, W., Wang, Z., Shen, N., Pi, W., Jiang, W., Huang, J., Hu, Y., Li, X. and Sun, L. Knockdown of ANLN by lentivirus inhibits cell growth and migration in human breast cancer. *Mol. Cell Biochem.* **2015**, 398(1-2), 11-19. [[CrossRef](#)]
18. Cheng, W., Zhou, X., Zhu, L., Shi, S. and Lv, J. Polymorphisms in the nonmuscle myosin heavy chain 9 gene (MYH9) are associated with the progression of IgA nephropathy in Chinese. *Nephrol. Dial. Transpl.* **2011**, 26(8), 2544-2549. [[CrossRef](#)]
19. Mouton, J., Loos, B., Moolman-Smook, J. C. and Kinnear, C. J. Ascribing novel functions to the sarcomeric protein, myosin binding protein H (MyBPH) in cardiac sarcomere contraction. *Exp. Cell Res.* **2015**, 331(2), 338-351. [[CrossRef](#)]