```
select_cons_tl  THM

⊢  ∀a:T, as:T List, i:ℤ. 0<i ⇒ i≤||as|| ⇒ (a.as)[i] = as[(i-1)]
| by UnivCD
|
1. T : Type
2. a : T
3. as : T List
4. i : ℤ
5. 0<i
6. i≤||as||
⊢  (a.as)[i] = as[(i-1)]
| by RWN 1 (UnfoldTopC ‘select‘) 0 THEN AbReduce 0
|
⊢  hd(nth_tl(i;a.as)) = as[(i-1)]
| by RWNth 1 (RecUnfoldTopC ‘nth_tl‘) 0 THEN SplitOnConclITE
|
.....falsecase .....
7. 0<i
⊢  hd(nth_tl(i-1;tl((a.as)))) = as[(i-1)]
| by AbReduce 0 THEN Fold ‘select‘ 0
|
⊢  as[(i-1)] = as[(i-1)]  by Auto
END
```